

The
**AMERICAN
RIFLEMAN**



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Veteran of the Dewar Classic scores 499 x 500 at 200 yards with Peters Outdoor Tack Hole

Staging a comeback in the small-bore game, Mr. U. S. Vance, testing a new barrel with several makes of ammunition, made this phenomenal score.



DISTANCE is the critical test of .22 caliber performance. Projecting the group to extended ranges involves a plus factor of dispersion, due to variables that affect the grouping most glaringly at the longer distances. Peters technique has reduced this projection error to a minimum.

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NEW Winchester Model 54 Rifle. For foxes, coyotes, bobcats or lynxes, cougars, wild hogs, deer at short range, turkeys, geese and smaller game and varmints.

Winchester Model 54 Rifle fitted with Lyman No. 48W micrometer windgauge receiver sight, as shown below. For big game from deer to walrus, supplied in six different popular long range and medium range calibers. For small game and target, .22 Hornet W.C.F.



NEW Winchester Model 64 Rifle. For deer, black bears, and game of similar vitality. Furnished in three different most popular medium range calibers.



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ONE of these Winchesters, selected according to your needs, will come through with the answer you want: *Right—proved by results.* It's an old Winchester custom.

In last year's International Championship Competition for Big Game Hunters, sponsored by the James L. Clark Studios, Inc., of New York—leading international taxidermists—the Winchester Model 54 was the outstanding winner among all the rifles used. Three first prizes—for mountain sheep, elk, grizzly bears—were won with one caliber, .30/06. Other important prize trophies in this competition were taken with the Model 54.

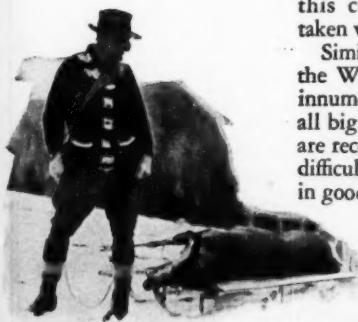
Similar examples of the dependability of the Winchester Model 54 to get results are innumerable, standing out conspicuously in all big game districts. Remarkable long shots are recounted without end. Likewise the most difficult shots at running game—the Model 54 in good hands performing superbly.

In this supreme model, Winchester offers your choice of six different calibers: .250/3000 Sav., .270 Win.,

.30 Govt. '06, 7 mm., 7.65 mm., 9 mm. Target accuracy. Exceptional handling ease. High lock speed. Strong, fast, smooth working, dependable action. Six shots. Barrel 24 inches, with integral front sight ramp and rear sight base. Stock, special N.R.A. design; pistol grip and forearm checkered. Lyman Gold Bead front sight; Winchester No. 22-G rear sight. Sling swivels. Weight 7½ lbs. Furnished with Lyman No. 48W receiver sight and N.R.A. type shooting gunsling, at extra charge.

In lever-action models for medium and short range shooting as indicated under the illustrations, Winchester offers the new Models 64 and 65. Smooth, fast actions. Stocked, balanced and sighted for speedy, accurate handling. Model 64: six shots; 24" round, tapered barrel; weight about 7 lbs. For .25-35, .30 (.30-30) Winchester or .32 Win. Special. Model 64 Deer: a de luxe gun for the deer hunter, has semi-beavertail forearm, checkering, sling strap—.30 Win. or .32 Win. Special. Model 65: eight shots; 22" round, tapered barrel; weight about 6½ lbs. For .25-20 or .32 W.C.F.

For highest speed, accuracy and power, buy Winchester Staynless Non-Mercuric Center Fire Cartridges. Absolutely non-rusting.



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WINCHESTER REPEATING ARMS CO., NEW HAVEN, CONN., U.S.A.

WINCHESTER TRADE MARK **STAYNLESS**
NON-MERCURIC **CARTRIDGES**

HELP US TO BEGIN BUILDING—NOW

Now that the back of the depression has finally been broken, the next few years will present an unusual opportunity to intelligently managed organizations,—an opportunity to make even greater progress than any made in the past. Naturally, we want the N. R. A. to be ready for this challenge. That is why we ask you to help us begin building *now*.

The first step is to gather facts from shooters in the field,—facts that will tell us the kind of service shooters need—facts that will show us how to approach other sportsmen and persuade them to sign up as members of the N. R. A. Hence this questionnaire. Your answers to the questions below will help build a bigger and better N. R. A. Fill out this blank now, while it is fresh in your mind, and mail it today,—please. It isn't even necessary to sign your name—unless you prefer to do so.

N. R. A. *Progress Questionnaire*

1. How did you first hear of the N. R. A.?

- (a) Through a friend.
- (b) Reading about it in some magazine.

What magazine?

- (c) Reading one of your advertisements.

In what magazine?

- (d) Through membership in a local (Junior) rifle club.
(Senior)

2. What feature of the N. R. A.'s activities prompted you to become a member?

- (a) Competition and qualification firing.
- (b) The *American Rifleman* magazine.
- (c) The fight against anti-gun legislation.
- (d) Personal help in the selection of guns and equipment.
- (e) Purchase of Government arms.
- (f) Junior rifle training.
- (g) Police pistol training.
- (h) National Defense.

3. Now that you have been a member of the N. R. A. for some time, which of the above-mentioned activities (Question 2) have the greatest appeal to you?

1st Choice.....

2nd Choice.....

4. Do you shoot a shotgun?

- (a) Trapshooting.
- (b) Skeet shooting.
- (c) Upland game.
- (d) Water fowl.

5. If a rifle shooter, indicate the order of your interest in the following: (1 for most interest, 2 for second, etc. Use 0 to indicate no interest.)

- (a) Target shooting:
 - Small Bore.
 - High Power.
- (b) Game shooting:
 - Small Bore.
 - High Power.

6. Do you expect to improve on your equipment this Fall?

- (a) Rifles.
- (b) Shotguns.
- (c) Pistols or Revolvers.
- (d) Telescopes.
- (e) Special metallic sights.

7. Does it look to you now as though you may be able to do more shooting this Fall than you did last year?

	Target Yes	Target No	Hunting Yes	Hunting No
(a) Shotgun	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) .22 Rifle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) High Power rifle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Pistol and Revolver	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Is there something you would like to see the N. R. A. do for its members or as a public service which, so far as you know, is not being done at this time?

.....
.....
.....

The AMERICAN RIFLEMAN

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SEPTEMBER, 1933

"WE DO OUR PART"

The National Rifle Association of America was one of the first organizations in Washington to sign the National Recovery Administration code, and, through this act, The American Rifleman and the N. R. A. Service Company, as subsidiaries of the Association, likewise became early and hearty subscribers to the code. P. W. Farrington, of Sacramento, Calif., says: "I hope the new NRA accomplishes as much as the real NRA."

Our own NRA has effected the following partial list of services for the shooters of America:

Assisted the legislatures of 6 states this year in the drafting of laws to discourage the use of firearms for criminal purposes.

Opposed and succeeded in preventing the passage this year of 17 bills which would have unnecessarily and unreasonably restricted the possession and use of firearms by the honest citizens.

Qualified during the first seven months of this year 211 rifle instructors and 18,406 junior riflemen in the various grades of marksmanship proficiency, is serving 1,759 affiliated senior clubs and 663 junior clubs, including 90 summer camp groups; has enrolled 149 new senior clubs and 81 new junior clubs this year, and has expanded its year-round program of postal matches—all these endeavors tending to promote organized and, hence, safe shooting on properly supervised ranges.

Has unremittingly served to develop and maintain a high standard of marksmanship in the Regular Services, National Guard and the Officers Reserve Corps by including in its competitions events suited to their preferences, by providing trophies and medals and, most important, by organizing last year and for this year state and regional tournaments for the N. R. A. championships and trophies as a substitute for the temporarily suspended Camp Perry National Matches.

Has given of its experience and close everyday association with the shooters toward assisting government and commercial arms and ammunition factories in developing and improving their products and has initiated a new plinker target game which is a wide departure from the usual target match.

Has been supplying an average of 600 shooters a month with unbiased and accurate information by personal letter, relaying the more important questions and answers to all shooters through the columns of *THE AMERICAN RIFLEMAN*.

Has persistently sought before Congress to have maintained an adequate but nonmilitaristic national defense program for the United States, to keep our armed forces on a par with the strength of other nations, to properly provide for the National Guard, O. R. C., R. O. T. C. and C. M. T. C., and to encourage marksmanship among civilians by aiding clubs and permitting civilian qualification over the military course of fire.

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Courtesy J. A. THACKER, El Paso, Texas. Shows Mr. Thacker and antelope killed by him in Old Mexico

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POWDER SMOKE

Federal Firearms Law

WHEN Congress convenes in December, a special Senate committee on racketeering will make recommendations to the Congress for additional Federal laws to curb the activities of organized criminals. Subcommittees have been holding hearings in racket-infested cities all summer.

On only one point has the testimony been almost unanimous. This was stated by Warden Lawes of Sing Sing in these words: "We know who the racketeers are. So do the police. They are affiliated with politicians and some of the politicians are racketeers." Special Assistant Attorney General Joseph B. Keenan put the matter in a slightly different way. He said: "It would seem quite apparent that many of these criminals, having been once apprehended and convicted, have been prematurely let loose as dangerous agencies among our communities."

Through the different phraseology of these and similar statements may be discerned the underlying truth in the minds of the witnesses: *The real cause of America's organized crime is our system which places police chiefs, commissioners, sheriffs, judges, prosecutors, and justices of the peace under the domination of politicians. A system which permits the criminal at almost every point of contact with the law to bring political pressure to bear.*

United States Prosecutor Medalie of New York told the committee that he could name four important political leaders in New York who are controlled by gangsters.

In the face of such preponderance of testimony as to the real reason for the boldness and mercilessness of the modern syndicate thug, a few fanatics—and perhaps some who would wish to turn the public's attention away from such an odorous angle of the crime situation—have rattled the bones of the poor old ghost, "Firearms."

Former Police Commissioner Edward P. Mulrooney of New York (who is sufficiently acquainted with the politicians of his state to have been appointed the Beer Control supervisor for New York State when retired as Police Commissioner) told the committee that Federal control of firearms was a necessity, but that to

obtain such legislation they would "have to get rid of the gun lobby in Washington." Even though Police Commissioner Roche of Buffalo (who two years ago supported Mulrooney in upholding the Sullivan Law before Governor Roosevelt) has publicly acknowledged the failure of the anti-firearms law idea, and has stated that he would like to see every honest citizen armed; and though James Bolan, present Police Commissioner of New York, does "not believe the law-abiding citizen should be denied the right to carry a gun," former Commissioner Mulrooney carries on his campaign for a Federal "Sullivan Law."

The serious feature of the situation is that Professor Raymond Moley, according to newspaper reports, "sat with Mulrooney to listen to the proceedings." Professor Moley is a power in the present administration, and is acting as a personal representative of the President in the development of a Federal "racket-control" program.

One thing is certain: the only organization which might, by the wildest flight of a fanatic's imagination, be called "the gun lobby in Washington," is the National Rifle Association. Commissioner Mulrooney has advised the Senate to "get rid of the gun lobby." Special Assistant Attorney General Keenan has stated that when a program of legislation is finally evolved, "no powerful lobby or interest of sportsmen will have sufficient weight to defeat its passage."

The intent to crucify the interests of ten million or more sportsmen on the cross erected by gang-controlled politicians is thus frankly expressed.

The answer, sportsmen of America, lies in your hands. The Congressmen and Senators who will pass or refuse to pass laws which will leave the criminal the only properly armed man in America are *your* elected representatives. Most of them are now at home where you can reach them and make plain your sentiments. Now is the time to secure their promise that the "interest of sportsmen" in their districts is not to be cast into the discard. You *must* take a personal interest in the matter at once if you would be of the maximum service in controlling unwise Federal firearms laws.

The

AMERICAN RIFLEMAN

SEPTEMBER, 1933

How to Stay "Healthy" While Hunting

By KENNETH FULLER LEE

(Photos by Author)

HUNTING is one of the healthiest, as well as the most ancient, of all sports. The vigor gained from days spent in the open, carrying a rifle in pursuit of game, large, small or intermediate, builds men capable of resisting disease in most of its forms.

A germ is one thing; a bullet from a high-powered rifle, or a charge of shot delivered at close range, is another. And no matter how healthy a man may become, the accidental discharge of an improperly-handled firearm can swiftly put an end to all his earthly activities—hunting included.

Shooting accidents are very largely preventable, and this article with its accompanying photographs is intended to aid in the checking of such accidents; first by showing how they occur, and then by suggesting remedies to be applied.

In Pennsylvania alone there were 75 fatal shooting accidents during one recent open season on deer and black bear; and of course there were many times that number of nonfatal ones. Every state in the Union where hunting is a major sport has its annual quota of such accidents, which could be avoided almost in their entirety if ordinary common-sense methods were employed by those carrying firearms in the game fields.

From the above it might be inferred that hunting is much more dangerous than it really is. However, the percentage of pedestrians annually killed by automobiles is greatly in excess of the number of hunters accidentally injured while in the field, and there were over 100,000 deer shot in Pennsylvania during the season mentioned.

The writer has been hunting for the past twenty years, and in that time has seen two fatal and several nonfatal accidents, every one of them preventable.

Four hunters were "driving" an area in Piscataquis County, Maine, one October day back in 1916. They were working through open hardwood country, keeping abreast of each other and about a hundred yards apart. Deer kept jumping from thickets ahead of the four men—now and then a white flag flashed briefly; and was gone. Toward sundown one of the hunters on the end of the line had worked ahead of his three companions. He emerged on the bank of a wilderness river, and stood there, watching for deer to cross. One of the other hunters came out some distance below him, and also scanned the river for signs of game. The first hunter pulled a white handkerchief from his hip pocket, and wiped his face. Hunter Number Two saw the flash of the white handkerchief, mistook it for a deer's flag, and fired two shots at it from a 351 Winchester. His first shot cut two fingers from his friend's right hand, and the bullet went on through his throat, killing him instantly.

The moral to this sad tale is a simple one: *Never shoot until you know what you are shooting at.* Fully one half of the accidents that appear in the headlines every fall are caused by the failure of some hunters to make sure of their targets.

Nothing in the woods looks like a deer—except a deer. To be sure, you may see a moving brown patch almost exactly the right shade of brown—but it won't have a white tail, a pair of alert ears, or a set of branching antlers, unless it really is a deer. So don't take your safety off, don't raise your rifle—don't even think of shooting, until you have made certain that your patch of brown is not a section of another hunter's anatomy covered with the popular brown khaki which so many unthinking sporting-goods dealers sell to deer hunters.

HOW NOT TO TAKE A GUN OUT OF THE BACK
OF A CAR



Keep your gun down until you know for certain that what you see is game! It may cost you a shot or two during the hunting season, but that is better than a lifetime of regret over an accident which might have been avoided.

On Thanksgiving Day, 1909, the writer and a friend were hunting ducks on Lake Cobbsseecontee, in Maine. We had a canoe, and located a big bunch of ducks in the lee of Cuba Island, half way down the lake. It was blowing hard, and we had a stiff job paddling across to the island, where we planned to leave the canoe on the shore, and cross the heavily-wooded point to where we had sighted the ducks.

I was in the bow of the canoe, and

later removed entirely to check the spread of tetanus. And so my second vital rule is this: *Never pull a gun muzzle toward you, out of a canoe, boat, car, or through a fence!*

At Lake Moxie a few years ago, two hunters left the camps one afternoon and headed for Big Sandy Stream in search of deer, both men armed with rifles. One of them was new to the woods, and stuck to his more experienced companion's heels pretty closely.

As they got out into game country he cocked his rifle and carried it that way. He tripped over a root and, in falling, the rifle was discharged and the bullet sliced a tendon in his friend's right leg, narrowly missing the bone. Which brings us to another cardinal rule: *Never walk behind anyone while carrying a cocked gun!*

A falling gun is always dangerous. *Don't lean your gun against a tree*

while you are preparing your lunch. The wind may sway the tree and an accident result.

In most states it is illegal to carry a loaded rifle or shotgun in a car. It is dangerous, and it is not necessary, for there is nearly always plenty of time to load when game is sighted from an automobile. It takes no longer to slip a shell into the chamber than it does to stop the machine.

Familiarity with one's weapons is a safety factor well worth having. A great many of the accidents

which occur are caused by ignorance of the functioning of the weapon being used. At Spencer Lake a few years ago the writer saw a hunter rest the barrel of a Colt .38 Military Model automatic across his left forearm, sight hastily, and pull the trigger. There was not time to shout a warning, and the hunter narrowly missed losing his sighting eye, the blow-back action tearing away part of his

ON THIS AND THE OPPOSITE PAGE ARE ILLUSTRATED SOME OF THE MORE COMMON CAUSES OF ACCIDENTS WITH FIREARMS

cheek and making a fearful wound. That was sheer ignorance. The man had purchased a new gun, and the dealer had not troubled to explain its action—which is perfectly safe once it is understood.

Failure to comprehend the use of the safety on different types of rifles and shotguns frequently causes trouble. At present there are so many kinds of firearms in common use that the average hunter never has a chance of familiarizing himself with them all. But *don't go into the field with a gun until its action is*



leaped out to hold her off the rocks, when there was a dull report directly behind me. At the same instant a sharp blow struck my left shoulder. Instinctively I reached for the spot with my right hand, which came away covered with bits of bone and ligament, and fine shot. Turning, I saw my companion leaning against the gunwale of the canoe, a jet of blood spurting darkly from the stump of his right arm, which was cut almost completely off at the elbow. He had tried to drag his old-fashioned hammer gun toward him, the hammer had been caught, and snapped. The shot charge had passed through his arm before it struck my shoulder, and only the fact that my heavy canvas coat and thick woolen sweater had checked its impact saved me from equally serious injury.

A hastily-improvised tourniquet made from a suspender brace stopped the flow of blood from the injured arm, which was



thoroughly understood. Keep snow, mud, and similar obstructions out of your shotgun and rifle barrels. Even the cardboard wad from a shotgun shell may cause a barrel to burst; and when this happens the results may be very serious indeed. Particles of flying steel have been known to cause dangerous injuries. A hand may be torn off when the barrel bursts under the gun's forearm.

Many accidents can be traced to the use of cheaply-constructed firearms—arms incapable of standing modern loads. With the multitude of laws which have been framed to protect the lives and bodily safety of the public at large, it is more or less wonderful that some ambitious legislator has not framed laws to prevent the sale and distribution of cast-iron guns.

After the World War the American market was literally flooded with German and Spanish rifles, revolvers, and automatic pistols which would never by any stretch of the imagination be considered safe. "Luger" pistols could be bought for six dollars, and the writer saw "Mauser" rifles chambered for the .30-'06 cartridge and on sale for \$10 and \$12 each. The rifles were so loosely chambered that the exploded cartridges had distinct bulges in all sorts of odd places, a very bad symptom indeed, and one which is very apt to be followed by serious consequences. Any real rifleman would know better than to risk his life by firing such weapons, but there are thousands of hunters in this country who would jump at the chance to purchase a high-power rifle for the sums mentioned.

Spanish copies of Colt and Smith & Wesson revolvers and pistols are gener-

ally so poorly made and of such inferior materials that the use of fully-loaded .38 Special and .32-20 cartridges in them is extremely foolhardy. The money spent for such shoddy guns is worse than wasted. You are buying Trouble with a capital "T."

There is little or no excuse for such careless buying, anyway. Any man who can afford to take time off to use a gun can equally as well afford to pay the modest prices which reputable American manufacturers now ask for their products. High-angle firing with rifles and pistols is another very dangerous practice, especially in thickly-settled regions. Your .250-3000, .270, .30-'06—any of the high-intensity modern rifles, will drift a bullet over into the next town ship if held at even a moderately high angle. And the soft-nosed or hollow-pointed bullets will still have plenty of punch left at the end of a 2-mile journey

to inflict a fatal wound if they happen to land on a man. But they travel fast, these modern rifle projectiles, and if made to strike the ground they usually fly to bits.

Danger from ricochets has been materially reduced in the last few years, except in the case of the low-power arms like the .38-40 and .44-40, which are fast becoming as rare as the Dodo. But do not go around sniping crows, hawks, owls, and similar tree-roosting game with a rifle that is capable of reaching from one end of a county to the other. Soon

or late, this practice is bound to get one into serious difficulties, and it gives the entire breed of riflemen a bad name in the countryside where it is carried on.



Very few persons are keen about listening to the whip-like crack of passing bullets, so plan to have a hill or some other suitable backstop in line with your rifle when you squeeze off your shots—and save needless trouble for everyone, yourself included.

The writer is not in accord with those states which have passed laws prohibiting the use of rifles in deer hunting, he feeling that the danger from the use of solid balls and buckshot in shotguns is much greater than that from the use of modern rifles. Wasted game—deer lost after having been peppered with inadequate buckshot loads, and the utter impossibility of precision shooting with the ball loads as commonly used by hunters—these things militate strongly against the wisdom of using the shotgun to the exclusion of the properly-sighted and highly accurate rifle.

Summing up can be done quite briefly, and the following set (*Continued on p. 19*)

Why Not This One?

By FREEMAN MERILLAT

DURING the past two years a number of articles have been published in sporting magazines telling of the excellent results which .25-20 S. S. rifles give when used with handloads of modern components. The .25-20 Repeater has not been mentioned, except to say that it is a more or less inferior cartridge.

Two or three years ago I bought a slightly-used Savage .25-20 Sporter. I had fired a number of 10-shot 100-yard groups of 2 inches and smaller with my Savage N. R. A. .22, but was unable to do nearly as well with factory-loaded ammunition in the .25-20. I then decided to try hand-loading, to see if better accuracy could be had. I had in the meantime made a better stock for the rifle, fitted a Lyman 48 sight, as well as bases for my 4-power Winchester scope; fitted a readily-detachable piece of walnut to the comb of the stock for use with the scope, adjusted the trigger pull, and bushed the firing pin down to .080 inch. A few measurements and figures indicated that the action should prove strong enough for any load likely to be fired; and later experience has confirmed this.

About the time I had this work finished, the first of the articles above mentioned was printed, and I set to work in earnest to dig out the truth for myself. I still needed reloading tools, and as business in the garage was dull at the time, I made the tools myself. I will not discuss them, except to say that they perform their operations satisfactorily, particularly the powder measure. An order to Belding & Mull brought cases, primers, powder, and a variety of .25-caliber bullets.

My object was to develop two loads; the first a maximum one with jacketed bullet and No. 1204 powder; the second a reduced load with a lead bullet and No. 80 powder.

The jacketed bullet load that I have decided is the best is the regular 86-gr. .25-20 S. P. bullet, with 12½ grains of No. 1204 powder, and no crimp. The muzzle velocity is about 1,925 f.s., which is 200 feet faster than the regular factory load. The bullet can be seated out far enough to very nearly come hard against the rifling, and yet permit the cartridge to load through the magazine. The load has been tested for accuracy at a bench rest, and prone with muzzle rest. Under good conditions it will place 10 shots at 100 yards in or touching a 2" circle. With the scope set for 100 yards it will shoot about 9 inches low at 200 yards. According to Whelen in the January 1932 RIFLEMAN, the trajectory of the .22 Hornet is very

little superior to this, the reason being that the longer and heavier bullet of the .25-20 does not lose velocity as fast as does the other. What few tests I have made indicate that the bullet expands well. I have fired quite a number of these bullets with 13 grains of powder, but find that this is definitely too much. The 86-gr. F. J. bullet will penetrate 20 inches of cedar railroad ties across the grain.

During the course of my experimenting I fired several hundred 60-gr. open-point bullets with charges of No. 1204 powder up to and including 15½ grains. The great trouble with this bullet is that 2 or 3 shots out of every 10 will go wild, sometimes by as much as 2½ inches from the rest of the group. One of the men at Belding & Mull's told me that his .25 Remington would sometimes throw them out a foot. Velocities of 2,500 feet can be reached in the .25-20 with the 60-gr. bullet, but this bullet loses velocity nearly twice as fast as does the 86-gr. one, when each is driven at its maximum velocity in the .25-20. Tests show that at 200 yards the 86-gr. bullet hits much the harder of the two. This is beyond the distance at which such a rifle should be used on game, but it illustrates the point.

Two other bullets tried were the 87-gr. Savage .250, and the 87-gr. .25 Remington, which were found to be not quite as accurate as the 86-gr. S. P. They are also too long to load through the magazine. The 100-gr. improved .25-35 bullets are too long for the 14" twist at such velocities as we can get with the .25-20 case. They are quite inaccurate at short ranges, and at 100 yards they will usually keyhole. None of these three bullets will expand at all at .25-20 velocities. I have never had any really useful accuracy with any of these jacketed bullets and No. 80 powder at moderate velocities.

When using lead bullets, it is my practice to expand the necks of cases about .0005 inch larger than the groove diameter of the barrel, which is .2573 inch. My bullet-sizing die has been lapped out to such a diameter that bullets sized in it seat in the cases with just enough pressure to hold them securely. I use no crimp with lead bullets.

We will first consider three bullets which are standard for the .25-20. The first of these is B. & M. 25985. The second is a bullet cast by the mould on an old Ideal .25-20 S. S. combination reloading tool. The third is the factory-made Lubaloy-coated .25-20 lead bullet with hollow base. These bullets are all flat point, of about 86 grains in weight, and about 11/16 inch

long. The maximum charge of No. 80 powder for accurate shooting is 5½ grains for the first two bullets, and 5¾ for the last. Small increases in powder charges give groups quite a bit larger. Muzzle velocities are about 1,200 feet. All three will quite regularly shoot into, or touching, a 3" circle at 100 yards, for 10 shots, and a good part of the time into a 2½" circle. They require about 15 minutes more elevation for 100 yards than the 86-gr. S. P. load mentioned above.

Belding & Mull bullet No. 25984 is similar to their No. 25985, except that it is a gas-check bullet. The No. 25987 is a pointed gas-check bullet for the .250 Savage. Both give 5" groups with suitable charges of No. 1204 powder. With No. 80 powder, bullet No. 25984 is no more accurate than No. 25985, but can be given a somewhat higher velocity. B. & M. No. 25990 is a pointed boat-tail bullet of 90 grains. All the loads tried with it keyholed, even at very short ranges. It is much too long for the twist.

The foregoing information about lead bullets has really been paving the way for the statement that: The bullet for a .25-20 with No. 80 powder is B. & M. No. 25962, or one similar to it. This bullet performs well with 4½ to 8 grains of powder, giving from 925 to about 1,675 feet velocity. It is just as accurate as any bullet I have tried—a thing one would not expect in so light a bullet. It gives groups of about 2¼ inches at the lower velocities, and about 3¼ inches at the higher. It is blunt enough to seat out against the rifling and yet work through the magazine. The sight adjustment for the 8-gr. load and the 86-gr. S. P. load are about the same for 100 yards, which has not been the case with any other plain-base bullet that I have tried. In short, this No. 25962 bullet is so much better than the heavier bullets that I intend to use it exclusively.

A short time ago my supply of No. 25962 bullets became exhausted, and I took the old .25-20 S. S. mould mentioned, and cut it off to cast a bullet 9/16 inch long, of 69 grains weight. This makes a more useful bullet than the original one, because it can be speeded up quite a bit; and it is fully as accurate as the original bullet. In its characteristics it holds a position midway between bullets Nos. 25962 and 25985. It is not as versatile a bullet as No. 25962, however. This confirms my belief that a bullet of about 60 grains weight is the best. Some may wonder why the 60-gr. jacketed bullet is not equally good, but there are a number of other factors that enter in here. (Continued on p. 19)

The Thirty-two-Gauge or Fourteen-Millimeter Shotgun

By JAMES VANCE, M. D., F. A. C. S.

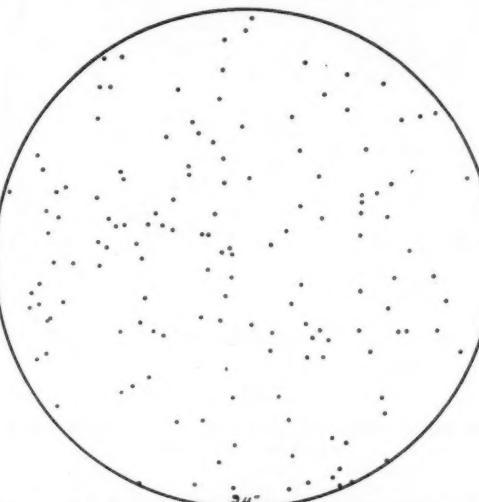
BECAUSE of its many advantages, the 32-gauge shotgun, though comparatively little known in this country, really deserves to be very popular.

In the first place, the 32 gauge is the smallest *real shotgun*. With properly loaded modern ammunition it will kill any shotgun game up to a distance of 40 yards. This gun does not lack in power, as does the .410.¹

In the second place, the gun and ammunition are both light, and the ammunition is not bulky. The cartridges weigh less than half as much as 12-gauge cartridges, 61 normally loaded 32-gauge cartridges having the same weight as 25 of the 23/4" twelves with 1 1/4-ounce shot charges. This light gun, with its light and compact ammunition, makes your all-day tramping a pleasure; and this advantage is very real even in comparison with the 20 gauge.

A matter always worthy of consideration is the cost of ammunition, and 32-gauge cartridges should be inexpensive. With a proper demand, and just one cartridge of this size, the loading companies would be able to produce this ammunition at a very reasonable cost. The ammunition produced should also be of the very best quality, because variables can be reduced to the minimum, and costly research and experimentation, in an effort to fit the ammunition to a dozen different cones and bores, can thus be avoided.

It is a well-known fact that every good gun helps to promote the cause of shooting generally, and each particular size of gun attracts a certain class of purchasers that would not be interested in any other gun. This is true from the tiny .410 to the mighty Magnum 10 bore. There is certainly a place in this country for the 32 gauge, and I can see no reason why our arms and ammunition companies should not fill this potential demand. Imperial



PATTERN NO. 1. STANDARD FACTORY LOAD OF $\frac{1}{2}$ OUNCE NO. 8 CHILLED AND DU PONT SMOKELESS, AT 35 YARDS. THE LOWEST OF 20 CONSECUTIVE PATTERNS, YET IT SHOWS HOW SMALL GAME CAN BE KILLED PERFECTLY UP TO 35 YARDS

Chemical Industries, Ltd., of England, supply cartridges in every gauge and length, from the gigantic 4 bore to the .410; and if England can furnish such a complete range of shotgun ammunition, surely our American companies can supply our own much more limited demands.

Bag limits are small all over the United States, and it would seem that any man ought to derive more pleasure from getting his limit of small game with this beautiful, close-shooting little gun, rather than by skinning down his birds with an ounce or more of shot in an open-bored gun.

The 32-gauge gun is supplied with cartridges by the Remington and Winchester companies, and by no others in America. This cartridge has a 2 1/2" case, and a normal shot charge of $\frac{1}{2}$ ounce. The outside dimensions of both the above cartridges are the same: both loaded cartridges have an external paper diameter of .555 inch, and over the brass, just in front of the

rim, the diameter is .565 inch. This is evidently the standardized cartridge all over the world.

The 32-gauge gun has a bore diameter of .526 inch. Fourteen millimeters are .551 inch, which could only refer to the cartridge or chamber of the gun. Both terms are misnomers for the cartridge as made today. Originally the 32 gauge was probably correctly named, because it then had a brass shell the internal diameter of which could easily have been .526 inch. Be that as it may, .526 inch is too large a bore for even the thinnest 32-gauge paper case.

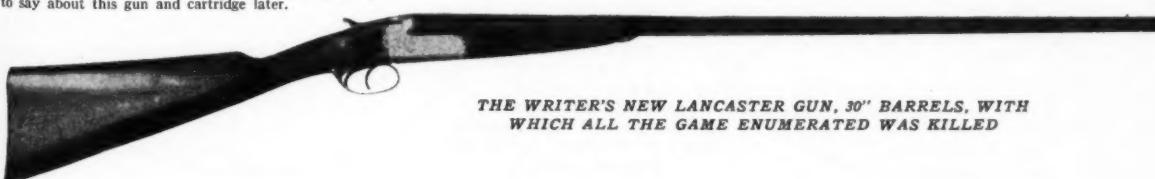
The Gunmakers Association of London gives the bore of this gun as .502 inch. This bore may have been all right with the thick-walled paper cases of about forty years ago when this diameter was given, but with modern, tough, thin-walled cases .502 inch is too small. The perfect, thoroughly modern Winchester shell, unfired, has an internal diameter of .510 inch. The Remington unfired case has an internal diameter of only .490 inch, which is too small for even a .502" bore. This disparity of internal diameters is out of all reason, but Remington can easily remedy this by using thinner paper for their cases.

The excellence of both Remington guns and ammunition are too well known to cause doubt that the small internal diameter of their 32-gauge cases is the result of other than underbored guns of this gauge which they are trying to fit. This is a pertinent example of the baneful effects of "go-as-you-please" barrel boring.

The Winchester case has been so satisfactory in every way, and so adequate for all loads suitable to this cartridge, that there could be no mistake in adopting such a case as standard for this gun.

To give best ballistic results the internal diameter of the case must closely correspond to the bore diameter of the gun,

¹This article was written before the advent of the 3-inch cartridge .410 bore. I shall have something to say about this gun and cartridge later.



THE WRITER'S NEW LANCASTER GUN, 30" BARRELS, WITH WHICH ALL THE GAME ENUMERATED WAS KILLED

wherefore this gun should have a bore diameter of .510 inch. The gun should then be known as the ".510 bore." The term "14-mm." will probably have to be retained, since this cartridge is shot in foreign guns so designated, in various countries of the world. In the same manner we have the .410 or 12-mm. gun, also called 36 gauge. Here the definite bore, .410 inch, saves the gun, for in this case 36 gauge is a worse misnomer than the 32 gauge under discussion. The definite term, ".510 bore," would suit the definite and excellent cartridge we have, and would stop the go-as-you-please habit of barrel boring that we now also have—all the way from something like .500 inch, to as high as .528 inch.

Ten times the earnest work and thought has been given to the development of the 12 gauge as has been given to any other gauge of shotgun. Much of this work has been misdirected, because right now we have paper-case 12 gauges bored all the way from .710 inch to .750 inch, with chambers and regular cartridges from 2 to $3\frac{1}{4}$ inches long. The above refers to 12 gauges all over the world, though the case is not quite so bad in the U. S. A. No ammunition company can get best results from the ammunition it makes in the presence of all these variables. The best that the makers can do is to furnish ammunition that shoots reasonably well in any bore that is chambered for a 12-

gauge cartridge; and it is surprising how well they succeed under the circumstances. This is the reason that any specified gun will give its best results with some one cartridge and one definite load, though it may shoot most cartridges fairly well.

It is with the hope of eliminating from the 32 gauge as far as possible the innumerable variables of the 12 and other gauges, that I have dwelt upon the defects of the 32 gauge. Compared with the other gauges, the defects of this gun are easily remedied. All that it is necessary to do is to fix the bore at .510 inch, or such other figure as our gunmakers determine best suits the cartridge, and *call the*

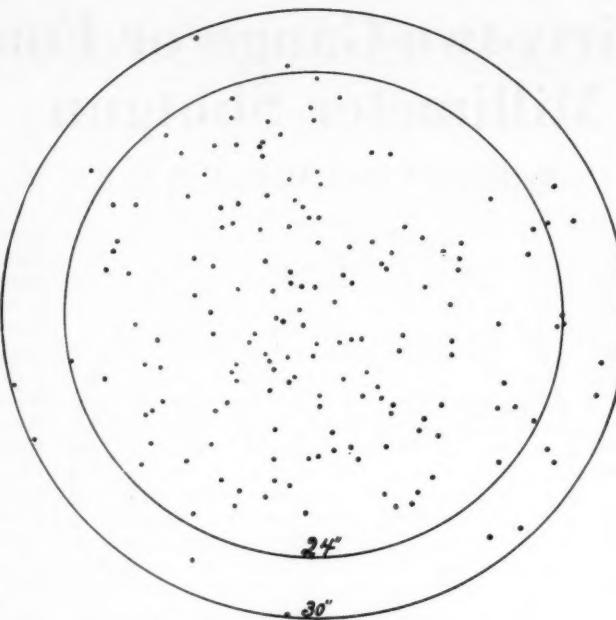
gun and cartridges by that name.

To give the very best results a gun must have only a one-length cartridge to exactly fit the chamber, and the bore of the gun must be at least the diameter of the interior of the unfired case. At the instant of firing, the paper case expands to the size of the chamber, and the case walls are flattened against the restraining chamber walls. This makes the shell diameter and the shot-column diameter larger. To throat this enlarged shot column into the bore of the gun is the function of the cone just ahead of the chamber. This "throating" should extend from one to four, or possibly six, inches beyond the chamber proper, depending upon the bore of the gun and the shot charge to be fired from it.

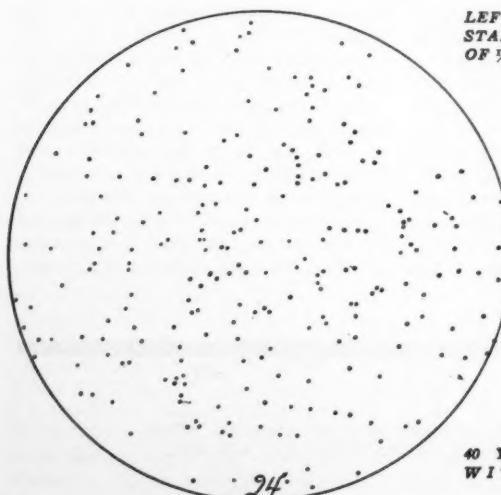
The .510-bore $2\frac{1}{2}$ " cartridge lends itself most admirably to removing all unnecessary variables and minimizing the necessary ones. Yet this single $2\frac{1}{2}$ " case will handle perfectly all loads of shot from the standard $\frac{1}{2}$ ounce to even $\frac{5}{8}$ ounce, with plenty of room for stiff powder charges, and ample wadding to insure good shooting.

American Guns

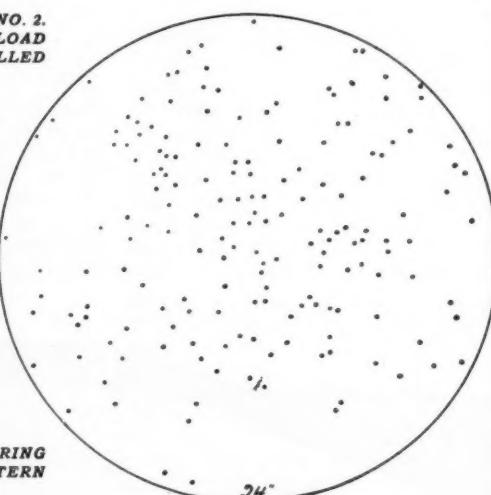
We have seen that it is easy to remove the faults and confusion that the misnomers of this gun and ammunition have produced, but we must have American guns. Fortunately, this should be as easy



PATTERN NO. 4. SAME LOAD AS NO. 3, BUT AT 40 YARDS. AN AVERAGE PATTERN



LEFT: PATTERN NO. 2.
STANDARD FACTORY LOAD
OF $\frac{1}{2}$ OUNCE NO. 9 CHILLED
AT 35 YARDS.
A PERFECT
LOAD FOR
SNIPE, HOLD-
ING KILLING
DENSITY TO A
GOOD 40 YDS.
RIGHT: PATTERN NO. 3.
HAND LOAD
OF 250 GRAINS
NO. $7\frac{1}{2}$ LUB-
ALOY AND 15
GRS. HERCO.
AT 35 YARDS.
NOTE HOW
LUBALOY
SHOT HOLDS
PATTERN TO
40 YARDS BY COMPARING
WITH 40-YARD PATTERN
SHOWN ABOVE

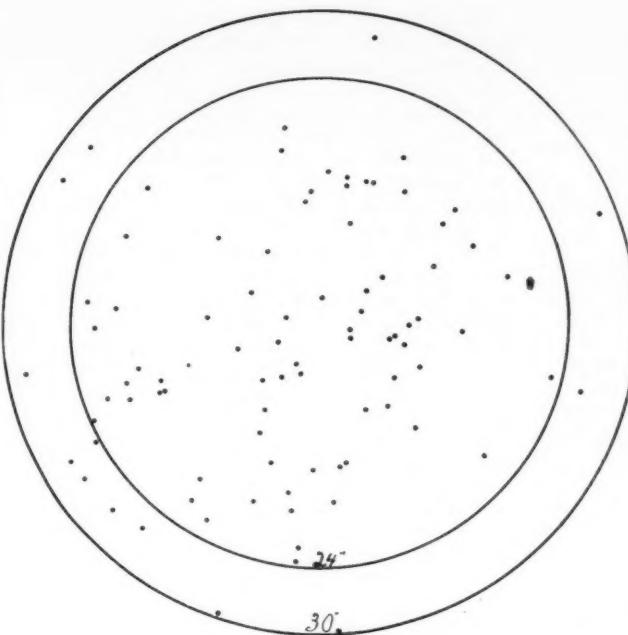


to accomplish as the former, because 32-gauge barrels will fit beautifully on all the .410-gauge frames manufactured by Ithaca, Smith, Parker, and the other makers who have put out double-barreled .410 guns. The .410 barrels look somewhat skimpy on the 28-gauge frames now used, but 32-gauge barrels would be well proportioned and would balance beautifully. Thus every man who has an American .410 double could send it back to the factory and have 32-gauge barrels put on, probably at no more than the price of the barrels and a new fore-end, since the old .410 fore-end would not fit the new 32-gauge barrels. New guns, of course, could be supplied in this gauge.

Gun Tests

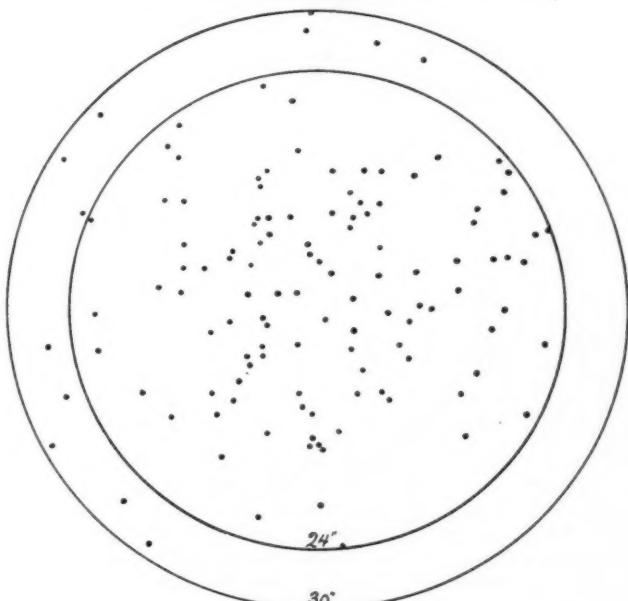
The writer has tested the 32-gauge gun thoroughly, both in the field and at the traps, and has fired over 500 shots for pattern and penetration. I have also done quite extensive hand loading in these tests, because factory-loaded ammunition has been so limited, compared to other gauges. In every respect these extensive trials have proved the gun and cartridge to be fully adequate to 90 per cent of all the shooting that the average shotgun user ever gets.

Over 1,600 game birds have been killed with this gun and cartridge. The list comprises more than 1,000 doves, 500 quail, and 100 ducks. Added to this, I have killed 50 white wings, 31 snipe, 15 prairie chickens, 3 chachalacas, 1 wild goose, 7 wild turkeys, and 1 crested curasow, the latter being about the same size as, and somewhat resembling, a peahen. Numerous crows, hawks, rabbits, ravens, as well as 1 coyote and 1 javelina boar, have also been killed. So I think anyone will admit that the gun has been sufficiently tried for its capabilities to be known.



PATTERN NO. 5. REMINGTON FACTORY LOAD OF $\frac{1}{4}$ OUNCE NO. 6 CHILLED, AT 40 YARDS. A GOOD AVERAGE PATTERN THAT KILLS DUCKS NICELY TO 40 YARDS, AS HAS BEEN REPEATEDLY DEMONSTRATED

PATTERN NO. 6. HAND LOAD OF 250 GRAINS NO. 6 LUBALOY AND 16 GRAINS HERCO, AT 40 YARDS. NOTE HOW ALL THE PATTERN IS IN THE 24" CIRCLE, WHILE THE KILLING CIRCLE IS ONLY 20 INCHES. ONLY AN AVERAGE LOW PATTERN, BUT WOULD KILL DUCKS PERFECTLY TO AT LEAST 45 YARDS



many yards beyond their pattern limitations. Consequently, the range of any gun is determined by the maximum distance at which that gun and load will maintain a killing pattern for the quarry sought.

Conditions of Targeting

All my patterning is done out of doors at waste ends of newspaper rolls. This paper, being white, is admirably adapted to the purpose, except that it tears easily and is a nuisance to handle in anything more than a light wind. It used to come 36 inches wide, but for some reason is now only 34 inches. To do full justice to even a little gun and ammunition, the paper should be at least 36 inches wide for 40-yard shooting; otherwise the best 30" pattern will not always be on the paper.

The writer has several hundred recorded patterns for this gauge, shot during the past eight years, but it was thought advisable to shoot a new series for this article.

The series given below have all been fired very recently, as leisure hours permitted. The factory loads were taken from stock I have on hand. Hand loads with Lubaloy shot were from shot kindly sent me by the Western Cartridge Company. The Herco powder was obtained by cutting up 12-gauge cartridges loaded with that powder.

Probably just as good patterns could be obtained from duPont Oval as from Herco, but the Oval powder which the duPont Company so kindly sent me ten years ago is probably not as good as their Oval of today. Not having new Oval powder, and having the Herco in 12-gauge cartridges, the latter was used. Furthermore, the limits of this article will not permit including a record of both, or even a small part of the possibilities of one. However,

should the matter prove sufficiently interesting I shall be glad to give the performance of Oval powder later on.

All circles are selected, and the 24" circle has the same center as the 30 inch.

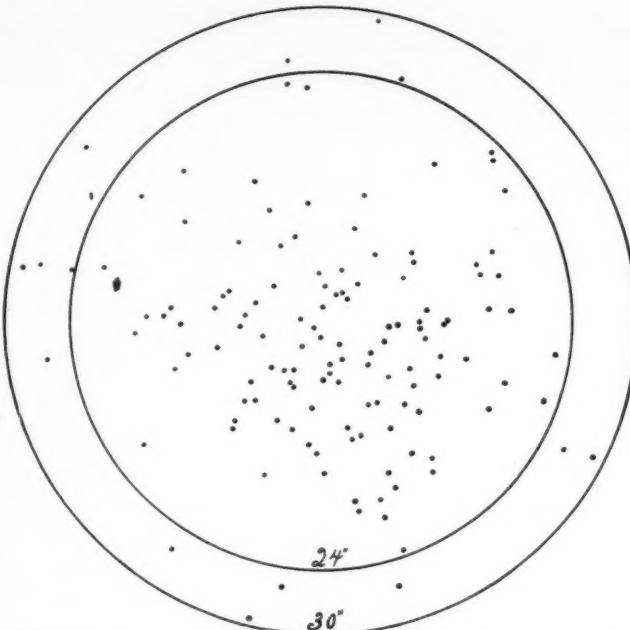
Guns under 20 gauge with ounce loads have not enough shot to cover a 30" circle with a killing pattern at 40 yards, therefore smaller circles must be given to represent the area in which the quarry would be killed at that range.

The Lancaster gun used in this shooting gives only a 20" killing circle at 40 yards, but in that circle it is very deadly. This gun, however, can be bored to give nearly or quite 24" killing circles, so this latter diameter of circle was chosen. Further, everyone is more or less familiar with shotgun shooting in 24" circles. The 30" circle is also given for comparison with the shooting of other gauges.

All patterns are shot over measured distances from the muzzle of the gun. This makes the shooter stand 4 feet back of the mark. Thus at 40-yards range the shooter stands 41½ yards. Ordinarily when 40-yard shooting is recorded the shooter is "toeing" the mark, as in trap shooting. This brings the gun muzzle from 1 to 1½ yards closer to the target, and makes the patterns from 1½ to 2 per cent better. From 40 to 50 yards, patterns fall off at least 2 per cent per yard, so the shooter's stance should always be stated.

Every series of patterns is here recorded just as shot. The right and left barrels were fired alternately, and each shot numbered. Every pattern was counted, and none was discarded.

All shooting was done with a Charles Lancaster, London, double-barrel hammerless ejector gun. This is a beautiful gun,



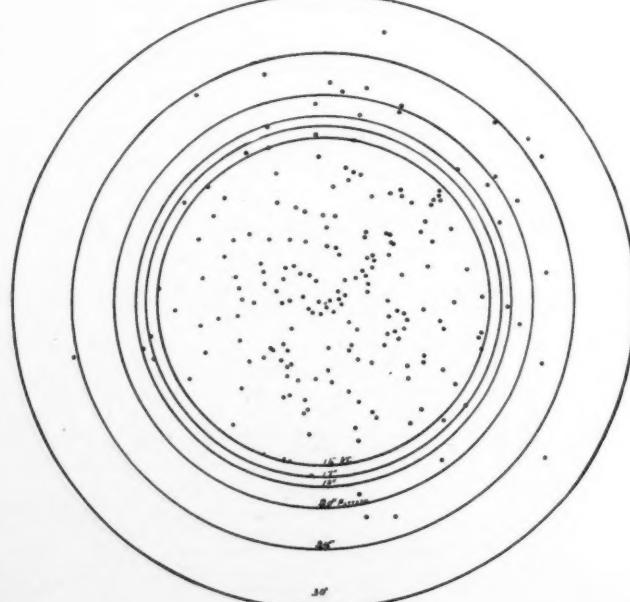
PATTERN NO. 7. SAME LOAD AS NO. 6, BUT WITH HARD CARD WADS OVER POWDER, WHICH ACCENTUATES THE CENTRALIZATION OF THE PELLETS, AS IS EASILY SEEN BY COMPARING WITH NO. 6

with two sets of barrels—28 inches and 30 inches. With the Winchester cartridge it is nearly perfect, but does not shoot the Remington cartridge at all well, because

This is the load with which I have done nearly all of my quail and dove shooting, though heretofore it has always been loaded with from 14 to 16 grains du Pont Smokeless. It is simply

perfect for the purpose, and its half ounce of shot is all that is needed up to 35 yards. Beyond that distance 9/16ths ounce is the better load. One hundred and fifty pellets within the 24" circle is ample for all small-game shooting, even including snipe. For snipe, however, I prefer 9's chilled in the same charge, which holds its killing density to 40 yards; and these small and tender birds are killed well at this distance with that small shot.

Trial No. 2. Same cartridge and loading as Trial No. 1, but 40 yards from muzzle of gun.



of too great a disparity between the internal diameter of the Remington cartridge case and the bore of the gun. The gun weighs 4½ pounds with each set of barrels, and with each it balances perfectly; but I prefer the 30 inch. The barrels are bored full choke.

Trial No. 1. Factory-loaded No. 8 chilled shot. Winchester cartridge with their latest nonmercuric primer. Shot charge, ½ ounce, averaging 202 pellets and weighing 210 grains. Powder, 12 grains du Pont Smokeless. Wads, one ½" and two ¼" nitro felt (given from powder to shot).

35 YARDS

	Right barrel 24" circle	Left barrel 24" circle
148	150	
155	154	
161	163	
152	151	
151	173	
Total	767	791
Average	153.4	158.2
	77%	78%

Total 767 791
Average 153.4 158.2
77% 78%

40 YARDS

	Right barrel 24"—Circle—30"	
135	172	
145	166	
118	154	
121	152	
129	164	
Total	648	808
Average	129.6	161.6
	64%	80%

40 YARDS

	Left barrel	Right barrel
	24"-Circle-30"	24"-Circle-30"
139	174	
135	159	
125	155	
123	148	
138	158	
Total	660	794
Average	132	158.8
	65%	79%

Although this load lacks the killing density of 150 pellets in the 24" circle at 40 yards, it has ample density in a 20" circle, and will kill very regularly in this circle at this range. At first I never even patterned the gun beyond 35 yards, but in actual field shooting I killed birds so regularly up to a good 40 yards that I then patterned this load at 40 yards, and saw that the shooting was not accidental.

This gun and cartridges are so perfect for small-game shooting that ever since I got my first Lancaster, eight years ago, I have not taken a larger gun out of the cabinet for this class of shooting.

Trial No. 3. Factory-loaded, 7½ chilled shot. Winchester cartridges containing average of 187 pellets weighing 234 grains; = ½ ounce + 15¼ grains. Powder, 15½ grains du Pont Smokeless. Wads, one ½" nitro felt + two 3/16" black-edge felt.

40 YARDS

	Right barrel	Left barrel
	24"-Circle-30"	24"-Circle-30"
112	147	121
143	164	126
138	166	115
118	148	123
128	160	134
Total	639	785
Average	127.8	157
	68%	84%
	66%	80%

Aside from noncorrosive priming and a better case, no improvement has been made in the ammunition for this gun in the eight years that I have used it. In fact my records show that the new Winchester cartridge is not quite equal to the old cartridge in patterning ability.

The box of cartridges from which this series was fired—the last of a case—was bought seven years ago, yet the patterns speak for themselves. Certainly a marvelous tribute to old du Pont Smokeless, and the loading.

Trial No. 4. Hand-loaded, 7½ Lubaloy shot. Herco powder, 15 grains; weight of shot, 250 grains, having an average pellet count of 202. Wads, two field + two ¼" black-edge felt.

40 YARDS

	Right barrel	Left barrel
	24"-Circle-30"	24"-Circle-30"
143	165	136
134	166	157
134	164	143
154	174	150
154	174	147
Total	719	843
Average	143.8	168.6
	71%	83%
	73%	84%

During many years of targeting shotguns I have dreamed of a gun that would pattern 70 per cent or more in a 24" circle at 40 yards—and here it is. All deadly patterns, and all practically the same.

Progressive-burning powders have permitted an increased load of chilled shot, giving higher percentage, and with as good or even better velocity. In effect this has increased the power of the 16 gauge to nearly the equivalent of the old 12 gauge, while the 20 gauge now nearly or quite equals the old 16 gauge. Finally, Lubaloy shot and progressive-burning powders together bring the 32 gauge quite up to the old 28 gauge with its 5/8-ounce load. This will of course increase the power of all the other gauges, but at all events it makes of the 32 gauge a 40-yard gun.

Trial No. 5. Hand loads, chilled shot. Powder, 15 grains Herco. Western shot, averaging 139 pellets and weighing 250 grains, = 9/16 ounce + 4 grains. Wads, two 70/1000" cards + one field + two 7/4" black edge; = 3/4" total.

40 YARDS

	Right barrel	Left barrel
	24"-Circle-30"	24"-Circle-30"
80	108	86
95	112	85
73	106	86
92	116	88
88	107	83
Total	428	549
Average	85.6	109.8
	62%	79%
	62%	78%

Having no factory-loaded Winchester 6's on hand, I loaded the above and fired them for comparison with the Western Lubaloy shot series that follows. These are all splendid killing patterns, and had I not seen the Lubaloy patterns I would have been very well satisfied with them. They are up to standard with this heavy charge of shot. Western shot was used, and in the same weight as the Western Lubaloy, so that a more accurate and illuminating comparison could be made.

In all hand loads given in this article every charge of powder was weighed to the exact grain. The shot was weighed with the same accuracy, plus one pellet. This because each pellet, weighing more than a grain, prevents the whole charge from balancing exactly. The same accuracy in the powder charge is maintained by all our great loading companies, but the measured shot charge is naturally not so accurate. However, the shot loading is so excellent that extreme variation is not more than from two to five pellets per charge, depending upon the size of the pellets loaded. Variation in weight is just as negligible.

Trial No. 6. Hand-loaded, No. 6 shot. Powder, 16 grains Herco. Shot, Western Lubaloy, 250 grains, counting 142 pellets. Wads, two field + two 7/4" black-edge felt.

40 YARDS

	Right barrel	Left barrel
	24"-Circle-30"	24"-Circle-30"
116	130 oil	114
107	116	113
96	121	111
109	124	107
113	126	97
108	121	114
Total	649	738
Average	108.16	123
	76%	87%
	77%	90%

Here are 12 beautiful, even, duck-kill ing patterns, that would keep on killing ducks to at least 45 yards if the birds were anything like centered.

We see that this perfect Western Lubaloy-coated shot is only very slightly lighter than their No. 6 chilled, the former counting 142 pellets and the latter 139 to the same weight of charge. We further see that these patterns are 10 per cent higher than the No. 6 chilled series, with better distribution of pellets. Also, I observed that there was no metal fouling of the gun barrels after firing this shot. Simple wiping after shooting left the barrels like polished silver. It is apparently not only the copper plating but also the lubricating effect of the Lubaloy coating that permits the pellets to slip through the barrel with comparatively little deformation, and so deliver even and uniform patterns at all ranges.

At short ranges the patterns are entirely too close with this gun, and even at 40 yards the killing circle is only 20 to 22 inches in diameter; whereas there are plenty of pellets to spread over a full 24" circle and still give a deadly pattern. Evidently it is only a question of boring the gun to give the pattern desired. An improved cylinder right and a choked left barrel, even with as small a gun as this, should give a perfect small-game gun with this shot, and progressive-burning powders.

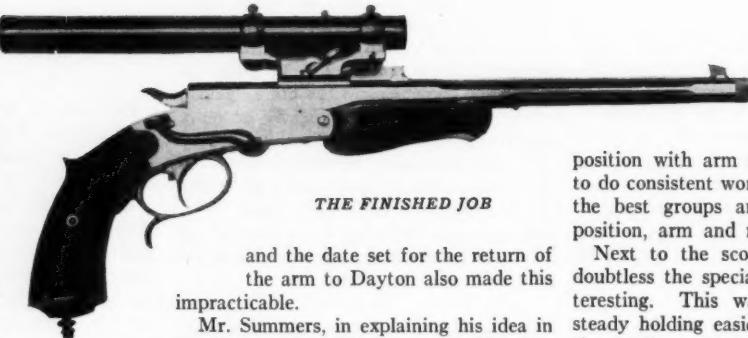
This shot also has another marked advantage over chilled shot in that it will stand a tremendous amount of powder drive without spoiling the patterns. Thus I found that 16 grains of Herco gave even better patterns with 250 grains of shot than did 15 grains, while chilled shot, in the loads tried, would stand only 15 grains of Herco. I did not go beyond 16 grains with 250 grains of shot, because, not knowing the pressures generated, I thought it wise to stop there. This 16-grain charge is a good stiff load for this gun, and gives plenty of penetration to kill well beyond pattern limitations.

Everybody knows about copper-plated shot, but does the shooting public realize the advantages that this shot, in combination with progressive-burning powders, are bound to give in both increased range and regularity of killing power? Lubaloy-coated shot is cer-

Painting the Lily

By A. E. SWANSON

IT ALL started with an article in THE AMERICAN RIFLEMAN of December, 1931, in which the writer described a single-shot set-trigger target pistol purchased from A. F. Stoeger, Inc., for about \$15. The article came to the attention of Mr. Otto Murray Summers, of Dayton, Ohio, inventor of a wide variety of highly specialized mechanical devices, a former mechanic in the U. S. air forces, and a pistol crank extraordinary. Mr. Summers liked so well the weight of the pistol— $2\frac{1}{2}$ pounds, the barrel length of 10 inches, and the grip, that he decided to use this gun as the *pièce de résistance* in the consummation of one of his pet ideas—the mounting of a telescope on a pistol in the hope and



THE FINISHED JOB

and the date set for the return of the arm to Dayton also made this impracticable.

Mr. Summers, in explaining his idea in putting together this unique combination, said: "Of course the whole outfit is a trick setup, designed especially to overcome the handicap of my trembling arms and blurred vision, and I got a great thrill when I found that I could make a group confounding to the experts. However, I had a jolt coming, as I was soon to find out that "the kiddo" (Miss L. Marie Summers), and even some of her friends who had never before fired a pistol, could shoot it quite as well as I, even though I have played with firearms all my life."

Doubtless readers will be most interested in the telescope. The catalogue description is as follows: Gnomet, $2\frac{1}{2}$ X; lens, $\frac{1}{2}$ " diameter; luminosity, 25; field at 100 yards, 10 feet 7 inches; O.D., 22-mm.; length, $8\frac{1}{2}$ inches. It is stamped "Oigee, Berlin." The price of the scope is \$17.50, and it is mounted in Stoeger's No. 560 mount.

Best results are obtained with the scope about $6\frac{1}{2}$ inches from the eye, as demon-



FIVE SHOTS AT 37.3 FEET. SITTING. WITH MUZZLE REST

belief that the combination would produce target results not obtainable with ordinary equipment.

The illustrations give a fair idea of the final product (with accessories) as conceived by Mr. Summers and carried out under his direction. The result proved so satisfactory that he notified the writer, suggesting that the readers of THE AMERICAN RIFLEMAN might be interested in the novel hookup. In good time the weapon was dispatched to me in Chicago, along with some surprising groups made with it, two of which are reproduced herewith. Mr. Summers explained that he was able to make these unusual targets despite the fact that he is not a crack pistol shot. In other words, he modestly gave the scope all the credit.

A few shots in a neighborhood basement range convinced me of the remarkable precision of the outfit. Though I had never done any shooting with a pistol equipped with a scope, and consequently had no standard by which to judge the work, the results seemed to me to be extraordinary. It was my intention to subject the weapon to an extended outdoor test, but the weather proved too severe,

strated by Miss Summers in the picture. While this seems awkward at first, a bit of practice in the sitting position with arm rest soon enables one to do consistent work offhand. Of course, the best groups are made from sitting position, arm and muzzle rest.

Next to the scope and its mounting, doubtless the special forearm is most interesting. This was designed to make steady holding easier, and also to reduce the tendency to fatigue. This forearm incidentally, is the work of Mr. J. Oberlies, of Dayton, Ohio.

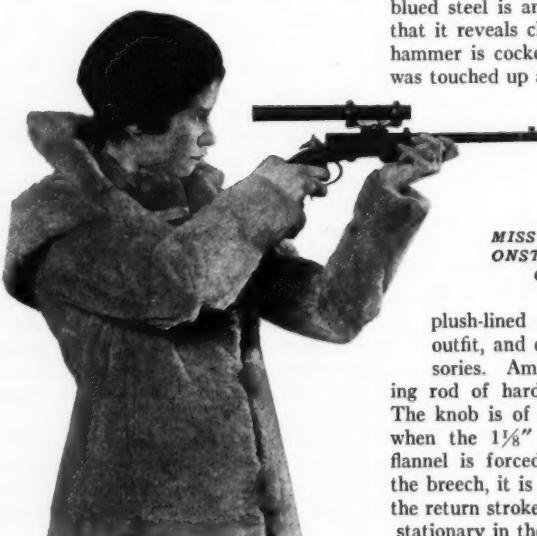
Mr. Oberlies also found considerable other work to do on the pistol before pronouncing it fit for the telescope work. As received, the hammer proved dead soft, and started to deform where it struck the firing pin. It was of excellent steel, however, and after proper heat treatment it proved satisfactory. Next, the hammer

A 6-SHOT GROUP AT 37.3 FEET. BOTH GROUPS EXACT SIZE



and side lever were stippled to improve the grip, and the hammer itself was given a special high polish. This polished hammer, by the way, is one of Mr. Oberlies' pet ideas, he maintaining that the polished surface standing out against the blued steel is an added safety feature in that it reveals clearly whether or not the hammer is cocked. The trigger pull also was touched up and given a velvet action.

Mr. Summers' plans did not end with the pistol itself. He also designed a handsome



MISS MARIE SUMMERS DEMONSTRATING THE PROPER OFFHAND POSITION

plush-lined sharkskin case for the outfit, and embellished it with accessories. Among the latter is a cleaning rod of hardened and polished steel. The knob is of such size and shape that when the $1\frac{1}{8}$ " square patch of canton flannel is forced through the bore from the breech, it is a nice snug fit, and when the return stroke starts, the patch remains stationary in the (Continued on p. 19)



The New Lyman Hunting Scope and Mount

By F. C. NESS

I HAVE just finished shooting a Springfield Service rifle equipped with the new Lyman "Stag" 3X Hunting Scope sight. It is a fine glass, but is quite large, with a swell at the ocular end which prevents low mounting. This large size is not fully justified by the magnification and breadth of field, the latter being 32 feet at 100 yards. The length of the scope is from 10½ inches to a foot, according to the extension of the eyepiece as adjusted for individual vision. The tube is about $\frac{3}{8}$ inch in diameter, swelled to 1½ inches at the ocular end. The scope weighs 14 ounces, and is therefore as large and as heavy as the Zeiss and Hensoldt 4X scopes, and fully an inch longer. The points in favor of the Lyman are the absence of the elevation boss and of the enlarged objective end. The field is practically equal in all these scopes, but the edge of the field is clearer in the Lyman. The definition of my 4X Dialytan is, however, very slightly better. There is no parallax movement of the reticule in the new Lyman scope, which movement I have been unable to eliminate entirely from the foreign 4X.

The Lyman Stag scope has fine optical qualities, the image being clear and undistorted out to the very edge of the field, as the makers claim. It has good light-transmitting qualities, best revealed late in the evening, and the focus is universal, or good for all distances. The exit pupil is as large as the pupil of the average eye ever gets when dilated in dim light. The eye distance, or relief, is nearly 4 inches. The

provision for convenient adjustment of the focus for individual vision is a very good one. This is not new, of course, as this feature is also common to the new Noske, Zeiss, and Hensoldt hunting scopes. The distinctive feature of the Lyman scope is the absence of the customary elevation boss, as well as other openings through which dust and dampness can enter. The standard Lyman reticule is a quickly and distinctly-seen flat-top taper post covering about 3 inches at 100 yards. The customer has his choice also of post with horizontal crosswire, and coarse cross hairs without the post.

I cannot become enthusiastic over the Lyman side-bracket mount. It is adjusted easily enough, and the zero can be securely locked by conveniently-slotted screws, but there is too much machinery for accomplishing this, and there is too much bulk and weight. The total weight, or what this sight and mount adds to the gun, is practically 1¾ pounds. In my opinion the benefits gained would justify only half of this weight. It is an example of poor engineering, as a glance at the cut will show. The weight is supported by a narrow base, with the center of gravity at a considerable distance above the anchorage point. Recoil imposes a severe strain upon the two dowel pins, which are too close together.

The fairly heavy but narrow side plate, or permanent base, is held friction-tight to the left side of the receiver by three screws, while two dowel pins take the recoil. The side plate is rather high, and

near the top it is drilled for a large screw which clamps it and the upper portion of the mount together, the latter straddling the plate below. This screw acts also as the pivot for elevation adjustment. A special wrench, which makes the operation of all adjusting screws very convenient, is included with the outfit.

The rear elevation screw is loosened before the scope is clamped to the base, but it is readily returned to the proper zero position because it is graduated for the purpose. The upper portion of the mount is also pivoted for lateral zeroing. This of course means one more joint. Register marks in the form of an abbreviated windage scale are provided at the rear end of the mount. The radius is very short, and only a slight movement is required to give a considerable change on the target. I had no particular difficulty in zeroing the outfit at 100 yards. If the scope is first bore sighted and the Lyman directions are then followed, five to ten shots should suffice for the zeroing.

The brackets which clamp around the scope tube are solid and strong. The upper halves are hinged, and tightened on the tube by screws. They loosened from the jar of the first ten shots, and the recoil moved the scope fully $\frac{1}{4}$ inch. When retightened, no further movement of the scope was noticed. However, solid blocks, split on one side for tightening, would make better clamps.

Another effect of recoil was to bind the large screw which clamps the mount and

permanent base together. After firing, it was well-nigh impossible to start this screw in order to remove the sight from the base. Also, when placing the sight back on the rifle some little difficulty was experienced in properly aligning the screw holes. A stop of some sort should be provided to make this aligning more certain, and to take the recoil.

According to the Lyman literature, separate bases for different rifles can be furnished, to make it possible to use one scope interchangeably on several guns. This will make it necessary to repeat the sighting-in chore each time the sight is changed from one rifle to another, however, which I do not consider advisable with this outfit. It is best adapted for one gun only. For interchangeable use, all adjustments should be confined to the permanent base on the rifle, as in the Hart mount, for example.

Because of the enlarged eyepiece, the Lyman scope must be mounted $1\frac{1}{4}$ inches higher than the receiver sight, as measured when the latter is in the lowest position. With the Lyman scope as mounted, the Springfield bolt handle just clears the scope by $\frac{1}{8}$ inch. The receiver sight can be used beneath the scope by merely lowering the eye. This high position of the scope causes an excessive drop from the line of sight to the comb. On the sample service rifle examined and tested, the minimum drop (at the point of the comb) was $3\frac{3}{4}$ inches, and the maximum drop (at the heel) was $4\frac{1}{2}$ inches. This made it necessary to hold the chin on top of the comb, and the lack of facial support offset the advantages of the scope. As a result, we did much better shooting without the scope.

The bore drop of the Service stock is $1\frac{5}{8} \times 2\frac{1}{4}$ inches, and of course the Springfield can be fitted with a stock having a drop at comb no greater than $1\frac{1}{8}$ inches from the receiver sight, when the latter is set for 200 yards. This would still leave the drop from the Lyman scope about 3 inches, which would very effectively defeat the purpose of the comb, which is to solidly support the cheek for a secure hold and sure aim. Not more than $\frac{1}{4}$ inch could be gained by grinding off the bolt handle where it meets the enlarged Lyman eyepiece, and I would consider any large scope like this new Lyman Stag model to be very poorly adapted for such bolt action rifles as the Springfield, Mauser, and Winchester. There is only one way of overcoming this excessive drop on these rifles, and that is by altering the bolt handles and safety levers by cutting and welding, or by heating and bending, either of which endangers the fine strength and smooth camming action of modern heat-treated bolts.

The new Lyman mount is necessarily massive and heavy because the scope is

large and heavy, and because of the provision for elevation in the mount rather than in the scope. Any large scope which weighs more than 10 ounces does not belong in a side-bracket mount. Large scopes like this one belong in bridge mounts right on top of the receiver, like the Redfield and Belding & Mull mounts. For practical reasons these large scopes should also be kept low on the receiver, regardless of metallic sights. This means using the scope exclusively, and only on rifles which permit a low position, such as the Remington Models 30-S, 14, and 25, the U. S. Rifle Model 1917, the Savage Models 99 and 40, and the Marlin solid-top side-ejection lever-action rifles. The new Lyman Stag scope would be most excellent for exclusive use on these arms, providing it were properly fitted to the rifle, with a bridge mount equipped with windage and elevation adjustments.

The heavier the scope and the higher its position above the line of recoil, the greater is the strain on the mount when the recoil suddenly jerks the rifle to the rear. In a side-bracket mount, the joint or anchorage plane is not in line with the center of gravity of the scope and upper portion of the mount, and the strain on all joints is thereby increased. I believe this explains the trouble I had in starting the Lyman joint screw after firing a few rounds of comparatively mild 1918 service ammunition, because this screw must bear the brunt of the recoil jar caused by the inertia of the heavy sight. I repeat it as my belief that any scope for a side-bracket mount should not weigh more than 10 ounces, and when it is mounted high to clear the bolt handle, safety lever and receiver sight, the scope should weigh still less and should also be compact, like the small Ziellklein models.

Some shooters who do not particularly object to weight and bulk may find this new Lyman Stag sight satisfactory for their purpose. The scope itself is a very fine one, practically a duplicate of the B. & M. 3X Marksman in size, shape, and general features, with minor advantages about equally divided between the two. Hence a new method of mounting is more needed than a new scope, but there is not much that is new in the Lyman side-bracket mount, and I fail to see in it any real improvement over older types.

The Book of the Springfield

By Capt. E. C. Crossman; 451 pages, $5\frac{1}{4} \times 8\frac{1}{4}$ inches, 77 illustrations. Small Arms Technical Publishing Company, \$4.

HERE is a book which, in the hands of every shooter of the Springfield (Service type or Sporter), would improve

the standard of marksmanship in this country by about 50 per cent; would increase the pleasure of shooting for most shooters by probably a full 100 per cent, and would decrease the number of letters to gun editors acent the Springfield, by probably 75 per cent. In other words, this really is *The Book of the Springfield*. It is an amazingly complete book, and yet it swings along from fact to fact in an easy, conversational way which enables the reader to soak up facts without realizing how much he is absorbing.

The book is impartial in its treatment of the Service Springfield, the Springfield Sporter, and the commercial sporters chambered for the .30-'06 cartridge. After disposing of these three general types of arm in as many chapters, it then goes into the technique of the so-called Free Rifle. From that point on you can find the answer to almost any question you may wish to ask.

Then there is a chapter of 30 pages on Accuracy and Safety Adjustments, which is the only thing of its kind we have ever seen so clearly written and yet condensed into such limited space. Practically everything that will affect accuracy or safety, from buttplate to muzzle, is covered in a way that will bring joy to the tyro who has been wading through reams of "literature" in an effort to dig out the same information.

Tying right in with that chapter is another—Ammunition Components. This chapter begins with the sentence, "A military or sporting cartridge consists of a case, usually of brass, a bullet, usually with a jacket on it, a charge of powder and a primer." The whole chapter itself is just as plain and just as easy to understand, although it deals with such easy to misunderstand subjects as brass annealing, effect of primers on brass, various causes of split cases, pierced and blown-out primers, bullet jacket alloys, types of primers and priming composition, and the various kinds of powders, etc.

There are also chapters on military and sporting rifle ammunition, replete with details and with "life-size" photographs of complete and sectioned bullets and cartridges. Not only are the general qualities of sporting ammunition discussed, but also the specific design and strong and weak points of practically all the .30-'06 sporting cartridges are considered.

Every tyro breaking into the .30-caliber rifle-shooting game should unquestionably read "The Book of the Springfield." Also, thousands of riflemen having something of a reputation in their own communities as "good shots" will, we suspect, find between the covers of this book many nuggets of information that will come in handy in helping them to maintain their reputations.—C.B.L.

The .250 "Zip Special"

By VERNON E. MEGEE

OWNERS of .250-caliber rifles who have felt the need for an accurate and inexpensive low-power load for short-range target and small-game shooting have heretofore had but two alternatives. They could either buy a set of expensive tools, and "roll their own," or else be satisfied with the mediocre performance of available subcaliber chambers. Being an ardent member of the .250 clan, with a marked aversion to reloading ammunition, I tried out all the devices on the market, in search of a suitable squib load for my deer rifle.

The .25 Colt A. P. cartridge was tried in the adapter chambered for it, and was rejected because of its poor accuracy and the fact that the jacketed bullet proved to be a very poor killer. Its cost of three cents per shot was also against it. A similar adapter for the .25 Stevens short rim-fire cartridge was found to be mechanically deficient, in that every cartridge ruptured when fired, with consequent erratic grouping; not to mention the disconcerting effect of hot powder gases in the shooter's face.

The new "Zip" device qualified in accuracy, but was too powerful with its .25-20 ballistics, and also too expensive for plinking purposes. With a good .25-20 rifle already in my collection, I had no use for such a load, excellent though it was. I wanted a 25-yard load, with the ballistic and economic properties of the .22 long rifle.

The .25 Stevens short rim-fire seemed to be the nearest approach in an available cartridge. I knew it to be accurate enough at short range, and the flat-pointed lead bullet is a good killer on small game—superior to the .22 long rifle in my opinion, and only slightly more expensive. Given the cartridge, there remained the problem of a suitable adapter. Thus the "Zip Special."

The throat of the new *unfired* Zip cartridge was enlarged with a $\frac{1}{4}$ " drill, and hand reamed until the .25 Stevens bullet was a push fit. The Zip chamber was then altered to fit the new cartridge, with a tolerance of about .002 inch to permit of easy extraction, and the head of the Zip chucked in a lathe and undercut to take the thicker rim of the Stevens cartridge. No excess headspace was allowed when the two parts of the device were screwed together, which provision is necessary to prevent extraction difficulties. The entire alteration job consumed about an hour of a machinist's time, the most tedious part being the lathe work on the head.

First tests with some old semismokeless ammunition were disappointing; powder caking in the throat of the adapter destroyed all semblance of accuracy after the first few shots. A fresh supply of "Kleanbore" cartridges was next tried, with results that were most pleasing.

In my lever-action rifle, equipped with aperture and gold bead hunting sights, I fired several ten-shot groups from the sitting position, with improvised muzzle rest. The average group diameter at 25 yards was 1 inch, including the two or three wide shots in each string. A five-shot group at 15 yards made but one hole, the group measuring $\frac{3}{8}$ inch. Accuracy at these ranges was equal to that of the regular Zip loads, if not slightly better, and the new combination shot much closer to the service sight setting than did the more powerful Zip components. Whereas the Zip loads required a radical adjustment of sights laterally and vertically, the .25 Stevens centered its group just 2 inches low at 25 yards, using the regular 200-yard sight setting. Small game could be easily hit without changing sights, an obvious advantage when hunting big game.

There was no tendency of the adapter to heat and jamb the threads when the Stevens cartridge was used, and the two pairs of pliers were unnecessary in loading. Nor did the bullets fall out of an overexpanded neck, as has been known to happen with the regular components. All in all, the experiment seemed a marked success, so I passed it on to other local riflemen for trial. Reports have been very favorable, with special comment upon the accuracy of this combination. The secret, I believe, lies in the tight bullet throat, which compels the bullet to enter the rifling truly, and effectually prevents gas leakage.

Where more than one adapter is desired, care must be taken in altering to keep all dimensions within close tolerances, else there will be a slight variation in point of impact. For hunting purposes two or three of these adapters should be carried loaded in the pocket, for the Zip device has about the same speed of reloading as the Kentucky squirrel rifle, and even the best of us will often need a quick second shot.

Unfortunately, this combination can be utilized only in .25-caliber rifles for which there is a Zip cartridge manufactured. For the .250 fan, however, it will be found well worth while for inexpensive short-range work. The report is very mild, akin to that of the .22 short, but the punch is ample to upset the soft lead bullet perfectly in about 3 inches of pine. And it

DIP-MEASURING POWDER

Editor, AMERICAN RIFLEMAN,

Dear Sir:

The article in the July RIFLEMAN, entitled "Some Observations on Revolver Loading," by Dr. Edward Paine, interests me particularly in regard to the use of the dip measure. I have a different method, which I believe is more accurate, though I have never had a scale with which to check it.

I use two different "dippers." The one with which I do the actual dipping is made from a .45-caliber empty case, or something larger as the occasion may require; the other, or measuring cup proper, I prefer to make from one of the various .25-caliber cases, according to the size of the charge to be measured. I dip up the powder with the large-mouth dipper, which holds considerably more than the "measure" does, and pour it into the measure till it runs over, then strike off with the round side of the dipper, which appears to me to give more regular results than a square edge.

I use a measure with a small mouth, because the smaller the surface of the powder the less the variation in striking. For this very reason a teaspoon is about the most inaccurate measure to be found—unless it be a tablespoon. I arrived at these conclusions after observing the trickery practiced by unscrupulous grain buyers in using the grain tester.

Of course the powder must always be poured from the same height, which should be as little as possible. I should like some of the boys who have powder scales to test this method, and report their findings. It is my belief that by this method there is avoided all tamping, jarring or cramming of the powder, which has always been a fault of the ordinary dip measure.

OTTO A. WAGNER.

A GOOD TIP

Editor, AMERICAN RIFLEMAN,

Dear Sir:

My compliments to M. H. Goode on his highly interesting as well as instructive article concluded in the July issue.

All the wrinkles were covered except the one of placing the crooked thumbs at the after end of the eyepieces in such a manner that they covered the space between the outboard sides of the eyepieces and the head, thus shutting out bothersome "sidelight."

R. P. NOISAT,
Lieutenant, U. S. Navy.

shoots where you look, which is an item. The idea is passed on for what it may be worth. Try it, anyway.

More About Hornet Loads

By J. BUSHNELL SMITH

IN THE August issue of THE RIFLEMAN there appeared a short article by Byron E. Cottrell on reloading the Hornet. While Mr. Cottrell brought out several good points in his article, I find that I cannot agree with him on some of his figures.

I am in the custom ammunition business, and all my figures are based upon chronograph and pressure-gun tests made at the Burnside Laboratory and the Hercules Experiment Station, so I think I am safe in assuming that they are correct.

Mr. Cottrell first states that the standard load for the Hornet is 10.8 grains of No. 1204 powder. That isn't too far off, as the standard Winchester load is 11.0 grains. However, he goes on to say that there is a 3,000 f.-s. load, consisting of the Sisk 36-gr. bullet and 11.6 grains of the same powder, and so I will give below the dope on this bullet and various loads of No. 1204 powder obtained by test at Burnside Laboratory:

<i>Powder</i>	<i>Bullet</i>	<i>Weight Charge</i>	<i>Inst. Vel.</i> <i>at 53 feet</i>	<i>Pressure</i>
du Pont I. M. R. No. 1204.....	35.1 grains	12.5 grains	2,692 f.-s.	40,580 lbs.
du Pont I. M. R. No. 1204.....	35.1 grains	12.1 grains	2,607 f.-s.	37,430 lbs.
du Pont I. M. R. No. 1204.....	35.1 grains	11.5 grains	2,492 f.-s.	33,760 lbs.

Now there actually is a 3,000 f.-s. load for the Hornet—or one that is near enough to 3,000 f.-s. for the sake of argument, but it does not employ No. 1204 powder. As the above figures show, the very greatest velocity possible to obtain with the bullet in question and this powder is about 2,700 f.-s., and that only by using a straight-line loading die and throwing the powder charge into the die, ramming it into the shell when the bullet is seated. Normally the Hornet case will hold only 11.7 grains of this powder.

As to the 3,000 f.-s. velocity, this is obtained with a new Hercules powder that has only just been placed on the retail market though it has been in use for some time by several of the ammunition companies. It is known as "Hercules No. 2400." With this powder it is possible to obtain 2,600 f.-s. with the standard 45-gr. Hornet bullet, 2,850 f.-s. with the Sisk 40-gr. bullet, and 2,970 f.-s. with the 35-gr. Sisk bullet, without exceeding safe

pressure limits, which run in the vicinity of 40,000 pounds. These figures were obtained at the Hercules Experiment Station.

As to reduced loads or small-game loads, the Sisk full-jacketed bullet is excellent when loaded to about 2,200 f.-s. Loads giving lower velocities are not accurate enough to be worth while. The Hornet is such a superbly accurate cartridge that any load that will not make a 1" group at 50 yards is hardly worth while; and I have yet to find a cast-bullet load that will do this, or a jacketed-bullet load of much less than 2,200 f.-s. that will do it. However, with the Sisk pointed jacketed bullet this velocity is not too destructive on small game, and the load will make 1" 10-shot groups with surprising regularity.

Mr. Cottrell states that his reduced load has the same point of impact at ranges up to 60 yards as the standard Hornet loads. If this is so it is not in my opinion due to the load, but rather to the fact that he has one of those rare guns in which some

particular reduced load has the same point of impact as a full load. It has been my experience that even with a very stiff barrel and one-piece stock, a very slight change in the powder charge or bullet weight will very noticeably change the point of impact. Also, with a rifle as accurate as the Hornet, where slight changes are easily noticeable especially when using a scope sight, I find it necessary to check my sight setting each day with a few sighting shots, even when using the same load right along. I sometimes find that from 2 to 3 minutes of angle change is necessary from one day to the next. Of course this is true with practically all rifles, but many are not accurate enough or well enough sighted to make the variation noticeable.

This has not been written in any spirit of unfriendly criticism, but simply to help the game along. I should be glad to hear from Mr. Cottrell, and to compare notes with him.

A WARNING ABOUT LANOLIN

Editor, AMERICAN RIFLEMAN,

Dear Sir:

I read with interest the article on "Preservation of Gun Bores" by Hervey Lovell in the August issue of THE AMERICAN

RIFLEMAN and I presume that all gun cranks are more or less interested in such information.

I was surprised at the formula given by Mr. Lovell, as during the past 25 years I have had at various times cans of Adeps Lanae or lanolin on my shelf, and on all

occasions after a short period I have found that the inside of the container was rusted, this rust even extending down into the lanolin.

I have therefore consulted the United States Pharmacopeia and my local druggist, and I find that there are officially two forms of lanolin—one Adeps Lanae "hydrous," and another Adeps Lanae "anhydrous." The hydrous contains not less than 25 per cent nor more than 30 per cent of water and is the one most generally found on druggists' shelves and evidently is the only kind I have ever had. The Adeps Lanae "anhydrous" contains no water and is evidently the one that Mr. Lovell used and is not what the average man would get if he asked a druggist for a mixture of lanolin and vaseline. My druggist tells me that unless especially specified, the hydrous lanolin is what is invariably used, and this mixture, I know, could be nothing but harmful for the purpose intended. Therefore I think it would be well to call Mr. Lovell's and your readers' attention to the difference in lanolin so that they may be assured of getting the anhydrous variety when making up this mixture.

EUGENE F. WAHL, M. D.

SOME GOOD DOSE

Editor, AMERICAN RIFLEMAN,
Dear Sir:

There is one class of material available at moderate cost which is ideal for building up experimental set triggers, shotgun mechanisms, etc., but which is not often mentioned in print. This is *Ground Flat Stock*, sold by Brown & Sharpe, Starrett, and some others. This material comes in thicknesses from 1/32 to 1 inch, and in various widths. It is an excellent grade of tool steel, well annealed so that it will file and drill easily. The thickness being held to very close limits, it may be used for spacing blocks, etc. In hardening, this material should either be heated in a lead or salt bath, or else well protected by a layer of file-hardening compound as advised by Baker in "Modern Gunsmithing." Slow heating will tend to prevent warpage.

Now may I make a further suggestion which is strictly in line with works practice? When heating the necks of cartridge cases for annealing, the heads of the cases should be set in water. A deep, old-fashioned pie tin serves well, and one-half or one-third of the case can be protected. When up to temperature just knock them over, and the sudden quenching will give a fine grain.

JOHN L. WARE.

THE THIRTY-TWO-GAUGE SHOTGUN

(Continued from page 13)

tainly an epoch-making achievement in the history of the shotgun; just as much so as the introduction of progressive-burning powders in shotgun ammunition.

I hope to carry out many more interesting experiments with this shot, and, if these should be sufficiently interesting to the shooting public, I shall be glad to publish them.

Killing Circles

The killing circle of any gun at any range may be defined as the largest circle over which the pellets are spread with sufficient density to kill dead the game fired at.

To determine how close the holding had to be to kill with this gun and cartridge, the following test was made:

Lancaster gun and Winchester factory-loaded cartridges containing the standard $\frac{1}{2}$ -ounce charge of No. 8 chilled shot. Two or more shots were fired at each range.

At 15 yards the killing circle was found to be 9 inches.

At 20 yards the killing circle was found to be 12 inches.

At 25 yards the killing circle was found to be 16 inches.

At 30 yards the killing circle was found to be 18 inches.

At 35 yards the killing circle was found to be 19 to 21 inches.

At 40 yards the killing circle was found to be 19 to 21 inches.

It is at once seen that the killing circle at 40 yards is no larger than that at 35 yards, and this is not because the pellets do not spread more at 40 yards than at 35 yards, but because there are too few pellets in the charge to give a killing density in a larger circle. Naturally the killing circle at 40 yards is not so dense as that at 35 yards, but it is sufficiently dense in the circle indicated to kill very well.

I have not yet worked out killing circles for copperized shot.

PAINTING THE LILY

(Continued from page 14)

bore until the rod has moved about $3/16$ ", which draws the knob back against the fabric, thus forcing the latter against the bore, and giving a scrubbing action.

Oilers were made from a familiar design, but fitted with cap and spout that are quite leakproof. These embody the principle of a soft V seat against a harder metal, which is a design patented by the corporation that employs Mr. Summers. Also placed in the case are two perforated boxes of camphor gum, which, theoretically at least, acts as a rust preventative.

Even the cartridge blocks came in for special attention. Of these Mr. Summers says: "The blocks are to you just little pieces of walnut lumber worked suitable for a purpose. To me they mean more as they came from a tree that grew close by, or near to a little log cabin on the banks of Blue Spring Creek, down in Kentucky . . ."

The reader may be curious about the cost of putting together such an outfit. Of this Mr. Summers comments as follows: "As the outfit stands today, including the sharkskin case and accessories, the expenditure is a little in excess of \$100. However, as I am expecting to use it until I am ninety years old, the investment will be spread out pretty thin—on the amount-per-year basis. It has been described as 'the most perfectly appointed target pistol in Ohio'."

WHY NOT THIS ONE?

(Continued from page 8)

Reloads with bullets that I cast all cost me the same (not counting labor) as .22 l. r. cartridges purchased retail. Cases will stand at least 10, and sometimes 15 or more, reloadings with reduced charges when nonmercuric primers are used. I haven't worn any out yet. However, they may require full-length resizing about every 4 or 5 loadings. If one wishes to shoot factory-loaded ammunition, I would recommend the 86-gr. S. P. load, and the 86-gr. lead bullet cartridge loaded with semimokeless powder, as being the most accurate.

The .25-20 Repeater, properly loaded, is a much better cartridge than some writers would have us believe. Allowing for the fact that some of the single shot rifles have quite heavy barrels, there is very little difference in either accuracy or velocity between this and the .25-20 S. S. cartridge. The S. S. may have slightly the better of it in accuracy, but the fact that several companies regularly produce rifles for the .25-20 Repeater cartridge is something worth considering.

STAYING "HEALTHY" WHILE HUNTING

(Continued from page 7)

of Safety First rules can be pasted inside the door of your gun cabinet and referred to now and then—for good luck:

1. Buy a good gun, and thoroughly familiarize yourself with it;
2. Always unload a gun before bringing it into the house or camp;
3. Never pull a gun, muzzle toward you, through a fence or out of a car;
4. See that the muzzle is always pointed away from everyone;
5. Don't fire at high angles;
6. Make sure of your target before you shoot;

7. Don't carry a cocked gun while hunting in company;
8. Don't lean a gun against a tree;
9. Use care in cleaning your pistols; short guns are dangerous;
10. Keep a careful eye on your careless hunting partner;
11. A gun is your best friend or your worst enemy, depending entirely upon the way you use it.

Principal Contributors in This Issue

When KENNETH FULLER LEE—well-known hunter, guide, and all-around professional outdoorsman—speaks on matters pertaining to hunting, it behooves most of us to listen. Lee has spent many years in the Maine woods, and has seen hunters do some strange things.

FREEMAN MERILLAT, of Wauseon, Ohio, writes: "My interest in rifle shooting dates from the time that, as a boy, I used to borrow my father's Stevens Ideal .22 rimfire, and wonder why the bullets didn't all go into one hole at 50 yards. Nearly twenty years later finds me still trying to get all the bullets into one hole, but with a bit more success."

DR. JAMES VANCE, of El Paso, Tex., has hunted with both rifle and shotgun all the way from Alaska to Mexico. He has shot every gauge of shotgun from the big 10-bore to the .410, and has killed about every species of small game in North America. He has done a great deal of scientific testing of shotguns of all gauges, in the course of which he has fired many thousands of patterns.

"Since 1923," he writes, "I have shot the 32 gauge and .410 bore guns exclusively, and have never enjoyed wing shooting so much as with these tiny guns. Contrary to what one would expect, crippling—the abominating feature of all shotgun shooting—has been reduced to a minimum over any gauge gun I have ever used."

"The present article on the 32 gauge is written with the purpose of getting suitable ammunition for the gun, and to introduce to the shooting public the most charming of all shotguns for small game shooting."

A. E. SWANSON, of Chicago, writes: "I have been active in the hunting and shooting game for over twenty-five years, starting, as did so many other youngsters, with the old .22 Stevens Favorite. My early stamping ground was Sycamore, Ill.—a farming section offering some small-game and game-bird shooting. With the years I passed through all the stages of a shooter's career, owning many rifles, shotguns, pistols, and making trips to all the northern states, Canada and the gulf coast in search of hunting and fishing."

Washington Shoot Brings Out 267 Competitors

THE Washington State Tournament for the N. R. A. Championships and trophies has set a pace which the sponsors of the shoot are confident will not be matched by any of the other state shoots to be held during the year.

The attendance figure passed the 250 mark, 267 to be exact, and the extent to which the officers at Fort Lewis, Wash., went to make the meet a success left nothing to be desired by the competitors from any standpoint. The matches were held from July 27 to 30, inclusive.

General Castner, in command of the Third Division and Fort Lewis, made available every facility of the post for the matches. With present demands upon the Army, it is no small task to provide the personnel for the conduct of such a competition and the northwest shoot stands in the minds of shooters as a splendid achievement in surmounting obstacles by the personnel of the Third Division and the Pacific Fleet.

In anticipation of adequately meeting the situation, the rifle range had been extended to 40 targets at 200, 300, 600 and 1,000 yards, with 20 targets at 800 and 900 yards. Ample facilities had been provided on the pistol range for pit-operated targets. A centralized camp area was ready for competitors near the range, with pyramidal, floored tents, and with permanent structures for mess and canteen, headquarters and statistical building, quartermaster stores, showers and latrines. On the state military reservation of the Washington National Guard, near American Lake, an attractive area in an oak grove was set aside for the convenience of competitors who brought members of their families where tents with floors had been provided with the best of camp conveniences.

Officers directly in charge of the matches were Maj. C. M. McMurray, G. S. C., 3d Division, executive officer; Maj. Layson E. Atkins, 6th Engineers, U. S. A., chief range officer; Maj. Arthur W. Ford, Ordnance Dept., U. S. A., pistol range officer; Maj. Roy E. Blount, 11th Cavalry, U. S. A., rifle range officer; Maj. I. W. Kenney, Ordnance Department, W. N. G., N. R. A. representative; Second Lt. Harry B. Packard, 10th F. A., statistical officer; Second Lt. R. H. Harrison, 10th F. A., assistant statistical officer; Second Lt. Hugh W. Riley, 10th F. A., mess and supply officer.

As the Fleet Matches of the Pacific Fleet were to follow the N. R. A. matches, the members of the Navy teams were out in force and among them could be identi-

fied many whose names are nationally known and who have been competing at Camp Perry with the big Navy team. The U. S. Marine team from the Puget Sound Navy Yard, Bremerton, also contained a high percentage of members of the big Marine squad. The Engineer team was represented, the Washington civilian, the Oregon National Guard and Oregon civilian, the Washington National Guard, members of the Camp Perry teams from the Seattle police, the Los Angeles police, police team members from San Diego, an assembly of heavy hitters seldom found outside of the National Matches at Camp Perry.

Fort Lewis is the place to gather the toughest, for the treacherous wind conditions of the range call for the best of skill and experience. Wherever members of the service are, there will be those among them whose recollections of past experiences in the years that matches have been held there carry the message of how conditions at this range can humble the mighty and nullify the efforts of shooters ambitious to roll up a big score. Maybe due to the facts that conditions and the class of competition can be tough and the sponsors of the matches so cordial and capable, can be found reasons for the continued popularity of Fort Lewis matches.

While it would be impossible to enumerate or comment adequately upon the activities devolving upon all individuals responsible for the conduct of these matches, just about the busiest man on the grounds was the genial president of the Washington State Rifle Association, Harvey O. Scofield, of Tacoma.

The 3 high in the various matches were:

Camp Perry Instructors' Trophy Match (118 entries): Sgt. H. L. Ewtton, U. S. M. C., Bremerton, 50; J. Busch, U. S. S. *West Virginia*, 49; F. E. Anderson, U. S. S. *Arizona*, 49.

Navy Cup Match (138 entries): Pvt. H. Gettman, W. N. G., 94; V. Ward, U. S. S. *New York*, 93; E. S. Peterson, U. S. S. *Maryland*, 93.

N. R. A. Members' Match (16 entries): Sgt. C. J. Anderson, U. S. M. C., Bremerton, 50; P. A. Raack, 6th Engineers, 50; P. G. Johansen, W. N. G., 49.

Coast Guard Trophy Match (124 entries): J. H. Martin, U. S. S. *Cincinnati*, 99; Demers, U. S. S. *California*, 98; F. E. Anderson (high tyro), U. S. S. *Arizona*, 97.

Scott Trophy Match (95 entries): Pvt. H. T. Gilmore, W. N. G., 50; J. H. Martin, U. S. S. *Cincinnati*, 49; J. Busch, U. S. S. *West Virginia*, 48.

Wimbeldon Cup Match (105 entries): H. Arnold, U. S. M. C., Bremerton, 98; N. Glossbrenner, Yakima, R. C., 97; A. H. Isbell, U. S. S. *Maryland*, 97.

Individual Police Pistol Match (31 entries): J. J. Engebrecht, Los Angeles, 287; S. A. Slavens, Los Angeles, 286; C. B. Freed, San Diego, 286.

Individual Slow-Fire Automatic Pistol and Revolver Match (32 entries): R. S. Pease, San Diego, 182; L. E. Wilson, Cashmere, Wash., 181; M. E. Wheeler, Los Angeles, 179.

Championship Regimental Team Match (13 entries): Washington National Guard, Capt. Birt Vandewilt, team captain, 549; U. S. Marine Corps, Bremerton, Lt. A. J. Mathieson, team captain, 545; U. S. S. *West Virginia*, John T. Smith, team captain, 538.

A. E. F. Roumanian Trophy Match (14 entries): Washington National Guard, Maj. I. W. Kenney, team captain, 554; Washington Civilian Team, Har-

vey Scofield, team captain, 551; Puget Sound Team, Lt. A. J. Mathieson, team captain, 549.

Herrick Trophy Match (6 entries): Washington National Guard, Maj. I. W. Kenney, team captain, 1,707; Washington Civilian Team, Neil Baldwin, team captain, 1,691; U. S. Navy Team, Lt. J. P. Clay, team captain, 1,689.

Individual Civilian Club Members' Match (18 entries): R. B. Meister, Seattle R. D. and P. C., 99; L. F. Wilson, Cashmere, Wash., 95; D. W. Cook, Seattle R. and P. C., 95.

President's Match (147 entries): E. S. Peterson, g. m., U. S. S. *Maryland*, 143, first (high Navy man); P. J. Roberts, Los Angeles, 143, second (high National Guard); L. E. Wilson, Cashmere, Wash., 142, third (high civilian); R. E. De La Hunt, U. S. C., 136, twenty-fifth (high Marine); C. Liddle, Fort Lewis, 135, twenty-eighth (high Infantry); J. E. Kirby, Fort Lewis, 133, forty-second (high U. S. Engineer); Earl B. Cox, Pullman, Wash., 104, 140th (high O. R. C.).

Individual Pistol Match (76 entries): Dan Twohig, Seattle, Wash., 260; P. M. Watt, San Diego, 260; T. G. Warfield, U. S. S. *Maryland*, 260.

Crowell Match (98 entries): J. W. Beale, W. N. G., 50; A. L. Seabury, W. N. G., 50; Karl Kepp, Seattle R. C., 50.

N. R. A. Individual Pistol Championship (43 entries): J. J. Engebrecht, Los Angeles, 275; R. S. Pease, San Diego, 274; J. Haag, Seattle, 271.

Pistol Team Match (20 entries): Seattle Police Headquarters, 1,249; Los Angeles, 1,239; U. S. S. *Maryland*, 1,236.

N. R. A. Pistol Team Match (9 entries): Los Angeles Police, 1,372; San Diego Revolver Club, 1,341; Seattle Police Headquarters, 1,314.

Pistol Grand Aggregate (21 entries): R. S. Pease, San Diego, 983; C. H. Hendricks, U. S. S. *New York*, 978; M. E. Wheeler, Los Angeles Police, 976.

Rifle Grand Aggregate (45 entries): L. E. Wilson, Cashmere, Wash., 523; N. Glossbrenner, Yakima R. C., 517; Roy E. Meister, Seattle, 515.

ALAMEDA REVOLVER MATCH

THE city officials of Alameda, Calif., were again hosts to the revolver enthusiasts of San Francisco Bay Area on June 18 over the 20-target range of the Alameda police department. The match was under the personal direction of Capt. John W. Strohm, U. S. A., retired. The course fired was the National Pistol Team course.

The San Francisco traffic police team won with 1,322, followed by the Berkeley police No. 1 team with 1,269, Berkeley police No. 2 team with 1,238, and the 250th C. A., C. N. G., No. 1 team with 1,233. Sixteen teams competed. Lt. Frank Allen, 250th C. A., C. N. G., served as range officer with his usual prompt dispatch.

Captain Strohm has effected the organization of two 100 per cent N. R. A. clubs in his community and is lending every aid to promote small-arms competitions, particularly among peace officers. He generously provides medals for general encouragement, and the increasing number of team and individual competitors testify to the success of his efforts. The Captain Strohm Trophy was placed in initial competition in this match. The trophy, mounted, is a revolver captured by Captain Strohm in the Philippine campaigns.

Captain John Greaning, of the Berkeley Police Department, with several of his municipal officials, and chief Vern Smith, of the Alameda Police Department, accompanied by several officials of his city, have extended every courtesy to the N. R. A. State Secretary, Northern California, in securing and maintaining these competitions.—JAMES F. McCUE.

The Coming N. R. A. State Shoots

Alabama

THE Alabama State Rifle Association will hold a State Tournament of N. R. A. matches over the National Guard Range at Gadsden September 2, 3 and 4. The schedule is planned as follows:

September 2, Navy Match, 200-yard Rapid-Fire Match; September 3, President's Match, 200- and 600-yard stages, and Crowell Match; September 4, President's Match, 1,000-yard stage, and Wimbledon Match. The State Championship Match will be held at the same time by combining the course of fire with the above matches.

Contact E. E. Foster, secretary, Alabama State Rifle Association, Box 1021, Montgomery, Ala.

California

California State Matches will be held September 1 to 4, inclusive, at San Luis Obispo and will include the Individual Civilian Club Members' Match, Wimbledon Cup Match, President's Match, Crowell Trophy Match, Coast Guard Trophy Match, Navy Cup Match, Leech Cup Match, Herrick Trophy Match, A. E. F. Roumanian Trophy Match, and the American Legion Interdepartmental Match.

Contact L. A. Pope, secretary, California State Rifle Association, 532 Oxford Drive, Los Angeles, Calif.

Colorado

The Colorado State Meet, which will be held over the Colorado National Guard range, near Denver, September 2, 3 and 4, lists the President's Match, Navy Cup Match and Coast Guard Trophy Match in the .30-caliber field, N. R. A. Individual Pistol Match and Individual .22-Caliber Pistol Match and 3 small-bore events.

Contact William D. Wheeler, secretary-treasurer, Colorado State Rifle Association, Golden, Colo.

Illinois

The Illinois State Shoot for the N. R. A. high-powered rifle championships and trophies will be held by the Illinois State Rifle Association at Fort Sheridan, Ill., September 1 to 4, inclusive. Thirteen of the N. R. A. Matches have been listed to be fired. The schedule follows:

September 1, registration and re-entries. September 2, Navy Cup Match, Coast Guard Rapid-Fire Trophy Match, N. R. A. Members' Match, Crowell Cup Match, Leech Cup Match, September 3, Individual Civilian Club Members' Match, Civilian Interclub Team Match, A. E. F. Roumanian Trophy Match, Scott Cup Match, Wimbledon Cup Match, September 4, President's Match, American Legion Interdepartmental Team Match, Marine Corps Cup Match.

Contact L. L. Knight, president, Illinois State Rifle Association, 208 West Washington St., Chicago, Ill.

Indiana

The Indiana Rifle Association, in conjunction with the Indiana National Guard, will hold its annual matches on the state range at Frankfort, Ind., September 16 and 17. It is planned to include the Coast Guard Rapid-Fire Match, the N. R. A. Members' Match, the Navy Cup Match and the Individual Civilian Club Members' Match.

Contact Lt.-Col. Basil Middleton, N. R. A. state secretary for Indiana, Culver Military Academy, Culver, Ind.

Minnesota

For information on the proposed Minnesota matches contact C. M. Saam, secretary, Minnesota Rifle and Revolver Association, 3641 47th Ave., S. Minneapolis, Minn.

Nevada

The Nevada matches will be held September 2, 3 and 4. The matches to be fired will include the Individual Civilian Club Members, Navy, Coast Guard, Crowell, Civilian Interclub and, most likely, the President's matches.

Contact M. E. Norton, N. R. A. state secretary for Nevada, Carson City, Nev.

Oklahoma

The Oklahoma Rifle Association will hold its state matches for the N. R. A. championships either at Okmulgee or Ardmore, dates not yet fixed.

Contact C. Dale Wolfe, president, Oklahoma Rifle Association, Wewoka, Okla.

Rhode Island

The Affiliated Rifle Clubs of Rhode Island, through the courtesy of Adj. Gen. Herbert R. Dean and Lt. Col. Archer F. Williams, will hold matches for the National Championships and trophies of the N. R. A. at the Rumford state rifle range October 2 to 7, inclusive. The program for the tournament is as follows:

October 2, The A. E. F. Roumanian Trophy Match, the Metcalf Match.* October 3, Coast Guard Rapid-Fire Match, N. R. A. Members' Match, Crowell Match, October 4, Individual Civilian Club Members' Match, N. R. A. Individual .22-Caliber Pistol and Revolver Championship Match, Marine Corps Cup Match, October 5, Civilian Interclub Team Match, The News-Tribune Match, the Merriam Match.* October 6, President's Match, Scott Match, Navy Match, October 7, Police Revolver Team Match,* Wimbledon Cup Match. Souvenir Medal Matches for Rifle and Pistol will be held whenever ranges are available in accordance with bulletin announcements.

Matches marked * are limited to Rhode Island competitors.

Contact Frank B. Perry, 93 Calla St., Providence, R. I.

Sea Girt

The Fortieth Annual Sea Girt Shooting Tournament will include 3 N. R. A. Championship Matches, the President's, Leech Cup and Wimbledon Cup. The

shoot will be held September 2, 4 and 5 under the auspices of the New Jersey State Rifle Association with the following card arranged:

September 2, Governor's Match, Company Team Match, Regimental Team Match and Wimbledon Cup Match. September 4, President's Match and Dryden Trophy Match. September 5, Leech Cup Match and Sadler Match.

Contact Brig.-Gen. Winfield S. Price, president, New Jersey Rifle Association, office of Adjutant General, Trenton, N. J.

ALLEGHENY VALLEY SHOOT

SHOOTERS from a distance of 100 miles traveled to New Kensington, Pa., on July 4 for the Second Annual Allegheny Valley Rifle Association Meet. The day was warm but with strong winds that wrecked many promising scores.

The 3 high in the various matches were:

Arnold Merchants Trophy Match, Dewar course: J. W. Crolley, 392; W. Vettors, 391; H. W. Collett, 388.

Tarentum Sportsman Trophy Match, 50 and 100 yards: D. M. McCarrier, 282; Emil Linfors, 273; T. D. Montgomery, 271.

Spindale Sportsman Trophy Match, 50 and 100 yards: R. L. Guy, 393; J. R. Boyer, 393; Alex Webster, 391.

Two-Man Team Championship, 50 and 100 yards: J. D. Schoeller and W. Collett, 773; J. J. Dias and A. B. Lampy, 772; L. L. Fields and Alex Webster, 772.

200-Yard Individual Championship: J. W. Crolley, 192; T. D. Montgomery, 191; L. L. Fields, 187.

The club has 22 targets at 50 and 100 yards and 3 at 200 yards, with plans already made for 5 more targets at the latter range. All shooters fire from a raised position over level ground. It is the aim of the club, which is 100 per cent N. R. A., eventually to make its annual shoot the largest in western Pennsylvania.

A FOURTH OF JULY SHOOT

GOOD weather conditions prevailed for the Independence Day Shoot of the Hutchinson (Kans.) Rifle Club, a meet which the club contemplates making an annual competition as a result of this year's success.

Thurman Randle drove from Dallas, Tex., to try for the laurels of the shoot, as well as aid in the conducting of the matches, and when he departed for home he took with him the winner's share in the rifle aggregate and the Course D .30-caliber event besides high place awards in other matches. Results of the matches were:

Course D .30-Caliber Rifle Match: Thurman Randle, Dallas, 239; W. A. Smiley, Junction City, 238; E. Zumbrun, Junction City, 238.

Dewar Match: John Lawson, Wichita, 395; F. B. Jacobs, Kansas City, 394; J. R. Blankenship, Oklahoma City, 393.

Pistol Match: M. G. Watts, Kansas City, 444; Charles Stants, Wichita, 443; George Dewey James, Hutchinson, 442.

300-Yard Small-Bore Rifle Match: F. B. Jacobs, Kansas City, Mo., 46; A. K. Johnson, Hutchinson, 46; J. S. Blankenship, Oklahoma City, 45.

600-Yard .30-Caliber Match: John Lawson, Wichita, 50; Wallace Kilmer, Hutchinson, 49; Thurman Randle, Dallas, 49.

Grand Aggregate: Thurman Randle, Dallas, 723; John Lawson, Wichita, 716; A. K. Johnson, Hutchinson, 713.

THREE STATE RECORDS BROKEN IN OKLAHOMA SHOOT

IN THE most torrid June weather Oklahoma has witnessed in years, 75 hardy souls from 4 southwestern states gathered at Ardmore June 11 and 12 for the Eighth Annual Matches of the Oklahoma Rifle Association. The matches, open to all competitors for the first time, attracted shooters from Kansas, Texas, New Mexico and Oklahoma. New events, added to the program this year, served to round out a well-balanced and pleasing schedule of firing, both rifle and pistol.

Despite the heat and adverse shooting conditions, 3 state records were broken. Ardmore's 5-man team, with a score of 1,962, beat its last year's record Dewar score by 9 points. Luther's 5-man team hung up a score of 413 x 500 in the Police Pistol Match to wipe out its own record of 401, made in 1928. Harry L. Wilson, of Ardmore, scored a 49 in the 200-Yard Rapid-Fire Match to shatter another state record.

Thurman Randle, of Dallas, Tex., fresh from state championship victories in the California and Texas state small-bore matches, continued his triumphant march by winning the Oklahoma rifle aggregate. Randle displayed his versatility in the Oklahoma conquest, as the aggregate contained only one small-bore match.

Charles Askins, Jr., member of the Border Patrol at Strauss, N. M., and Jack Louthan, University of Oklahoma student, waged a merry battle for the Pistol Championship. Both men came to Ardmore direct from San Antonio, Tex., where Askins won the Texas state title. Louthan won in his native state, however, by an 8-point margin.

Medal winners follow:

Individual Dewar: V. A. Moore, Dallas, 394; Thurman Randle, 393; Mac. W. Wilkins, Oklahoma City, 393.

Five-Man Team, Dewar: Ardmore, 1,962; Okmulgee, 1,946.

Rapid Fire, 200 Yards: Harry L. Wilson, 49; Thurman Randle, 48; Elmer Croom, Okmulgee, 46.

Small-bore Wimbleton: Thurman Randle, 191; C. E. Mitchell, Dallas, 189; Helen Croom, Okmulgee, 188.

Army Rifle, 300 Yards: Carl Martin, Oklahoma City, 300 plus 1 bullet; Edgar Sittler, Beggs, 49; Alfred Stone, Oklahoma City, 49.

Army Rifle, Team: Oklahoma City, 240 x 300. Schuetzen: Alfred Stone, 83; R. M. Ryder, Seminole, 79; Thurman Randle, 74.

Free Rifle, 600 Yards: Thurman Randle, 100 x 13 V's; Henry E. Keotah, Oklahoma City, 100 x 12 V's.

Rifle Aggregate: Thurman Randle, 560 x 600; Harry L. Wilson, 552; John Blankenship, Oklahoma City, 241.

Two-Man Team: John Blankenship and Mac. W. Wilkins, Oklahoma City, 396. (Used 30.06 rifle and scope.)

Junior Championship: J. H. Barksdale, Okmulgee, 197 x 200; Frances McLean, Ardmore, 196; F. C. Hirdler, Jr., Oklahoma City, 195.

Ladies' Rifle Championship: Agnes Evans, Ardmore, 193 x 200; Helen Croom, Okmulgee, 190; Allene Hand, Beggs, 189.

Target Pistol: Jack Louthan, Oklahoma University, 90; Clifton Whitehead, Oklahoma University, 88; Charles Askins, Jr., 87.

Target Pistol, Team: Oklahoma University, 413 x 500; Luther, 404.

Police Pistol: H. H. Arnold, Shawnee, 90; Jack Louthan, 89; C. C. Crabb, Arcadia, 88.

Police Pistol Team: Luther, 413 x 500; Oklahoma University, 400.

National Match Pistol Championship: Jack Louthan, 271; Charles Askins, 271; Bob Mayrath, Oklahoma University, 266. (Louthan ranking score on rapid-fire target.)

Ladies' Pistol Championship: Mary Engel, Luther, 88; Mrs. H. E. Keotah, Oklahoma City, 82; Mrs. Ivan Yeaton, University of Oklahoma, 76.

Langrish Police Match: Charles Askins, 12 plus 18 hits; Jack Louthan, 12 plus 5.

Ardmore Special: Tom Mayrath, 196; Bob Mayrath, 195; C. C. Crabb, 194.

State Championship (Pistol Aggregate): Jack Louthan, 656; Charles Askins, 648; Bob Mayrath, 635.—HARRY L. WILSON.

TEXAS STATE PISTOL MATCHES

THE Thirteenth Annual Pistol Matches of the Texas State Rifle Association were fired in San Antonio June 3 and 4, drawing a total of 49 shooters. Some of the classiest shooting ever witnessed in the southwest featured the matches. Charles Askins, Jr., U. S. Border Patrol, stationed at El Paso, emerged the new State Champion, and Askins and his teammates of the El Paso Rifle Club, Sgts. R. Kirby, R. V. Wilzewski and E. Yerzewski, of the 8th Cavalry, Fort Bliss, took the State Team Championship with 18 points to spare.

Askins' performance with his Colt Shooting Master was truly remarkable. Don Nissen, star shooter of the Liberty Club of San Antonio, was Askins' only rival from the beginning. At the conclusion of the first half of the match Askins had a total of 281 over the 50-yard National Match course while Nissen had 278. The second day at the 50-yard stage Nissen tied for top honors by shooting an 86 to Askins' 83. At timed fire Nissen took one point lead by scoring a 93 to his opponent's 92. At rapid fire Askins delivered a 99 and Nissen scored a 93, giving Askins the gold medal, the Capurro trophy and the championship title. Askins scored a total of 555 points to Nissen's 550. The course was twice over the National Match course on the Standard American target.

Askins' brilliant work has placed him in the highest rank of pistol shooters in the United States. Askins is a comparative newcomer in the pistol game, this being his third year of competition. His score this year, by a strange coincidence, was the same as he shot last year for second place in the same match.

The first match got under way three minutes ahead of schedule, and from then to the conclusion dispatch featured the operation of the range. Chief O. W. Kilday, of the police department, detailed a crew of men to handle the targets. Lts. Fred Pillett, G. L. Davasher and D. H. Alkire, of Randolph Field, were the range officers. C. F. McCubbin, of the Peters Cartridge Company, and Ad Topperwein, of the Winchester Company, were in the statistical tent, assisted by Police Sgts. Cliff Ramchissle and William Christoph.

The Barbera trophy for the first stage of the State Championship at 50 yards consisted of the 50-yard N. M. course. Jack Louthan, crack shot from the University of Oklahoma, annexed this event with a 272. Sgt. R. V. Wilzewski, of the 8th Cavalry, Fort Bliss, took second with 269, and his teammate, Sgt. E. Yerzewski, copped third, losing to Wilzewski on the Creedmoor.

The Barbera trophy for the first stage of the State Championship at 50 yards

Leander C. Crossman

WORD comes of the death on July 4, at Los Angeles, Calif., of Leander C. Crossman, at the age of 80. He was the father of Capt. E. C. Crossman.

L. C. Crossman was one of the better-known western riflemen back in the '80s. As Sergeant Crossman of the Muscatine (Iowa) Rifles—companies of the National Guard in those days selected the names for their own organizations—he won third prize in the National Individual Shoot at Washington, D. C., in 1887, losing only to the Bull boys from the Springfield Armory, and shooting at the time against the famous Creedmore (New York) riflemen, with his old "buckhorn," open-sight Springfield, the issue rifle of those days. The prize was \$75 and a silver medal and the medal was pinned on the pleased Iowa rifleshooter by General Phil Sheridan.

Sergeant Crossman for some years led the entire Iowa National Guard in rifle shooting and competed in eastern rifle matches, including Washington and Chicago.

B. F. Leonard

A LONG career of unselfish service to the rifle-shooting sport came to a sudden end in Roswell, N. Mex., on July 16 when Sgt. B. F. (Barney) Leonard, while in the performance of his duties as a deputy sheriff, was mortally wounded by a gunman, described as "a notorious bandit and killer," whom he and fellow-officers had cornered in a house.

Sergeant Leonard, ignoring the danger of his act, was peering through a window of the house when the bandit fired, the bullet entering the left shoulder, puncturing the left lung and severing the spinal cord. A few minutes later the killer was himself killed by the other officers.

Sergeant Leonard was intensely devoted to shooting and always gave freely of his time and knowledge in instructing others with the rifle. He was a sportsman of high character and an able organizer and was a loyal supporter of the N. R. A., of which he became a life member. He was secretary of the Roswell Rifle Club, was slated for the secretaryship of the New Mexico State Rifle Association, and was instructor of marksmanship at the New Mexico Military Institute.

again went to Askins this year for the second time. Askins' score was 92, one point ahead of H. M. Cline. These two shooters battled for this trophy last year with the same result. Third place went to Rex S. May, San Antonio police, with 89.

The McNeel Jewelry Company trophy for the timed-fire event went to El Paso in possession of Sgt. R. Kirby with 96. Askins and Jack Louthan tied for second with 95, but the application of the Creedmoor count put Louthan in third place.

The rapid-fire stage for the Beattencourt Jewelry Company trophy was won by Don Nissen with 98. W. J. Reed, San Antonio, took second with 96, and Sergeant Kirby took third place with 96.

The Individual Military Match, open only to .45 automatics, was shot over the 25-yard course and was won by Jack Louthan with 278. Second place was occupied by Sergeant Wilzewski and third went to Sergeant Kirby. The Military 4-Man Team Match over the same course was annexed by the Liberty Club team of San Antonio. The individual scores of the team members were: Don Nissen, team captain, 276; Sgt. W. E. Morgan, 272; Otto H. Hagemann, 269, and L. L. Cline, 268, for a team total of 1,085. Second place was taken by a Fort Bliss team with 1,054.

The any-pistol or revolver match brought forth everything from the .45 automatic down to the .22 10" barrels. It was won by Askins and his Shooting Master with 198 x 200. Askins shot 18 consecutive 10's, dropping to 9's on his last two shots. Second place went to Jack Louthan, only one point behind, and third place to Rex May, also with 197.

The Houston Rifle and Pistol Club trophy, shot for over the 25-yard course with .22-caliber pistols or revolvers, was won by Sgt. Dick Wilzewski with 290. Second place went to Sgt. H. J. Grubb, of Fort Sam Houston, with 287, and third place to Otto H. Hagemann, of the Liberty Club, with 286.

The Milstead Trophy Match, for which the E. Hertzberg Jewelry Company, San Antonio, donated a beautifully engraved trophy for annual competition in memory of Police Lt. A. S. Milstead who was killed in an automobile accident while returning from Camp Perry in 1931, was one of the most popular matches on the program. The course was the police course. Askins took the trophy for its second trip to El Paso by virtue of his score of 289. Second was Detective R. F. Tate, San Antonio, with 282, and third, Sgt. R. Kirby, Fort Bliss, with 281.

In the cap-'n-ball match, Gene Farren, Houston, came through with an even 90 to win first place. Second place went to Jess Raven, of Austin, with 85, and third to A. R. Martin, San Antonio, with 83.

The Bell Jewelry Company Trophy

Match, the second half of the State Championship Match, always has been one of the hottest matches on the Texas program and this year was no exception. Askins established his right to possess this trophy for the next year by topping the field with 274. Runner-up was Sergeant Wilzewski, only one point behind, and third was Don Nissen. This event ended the individual match shooting and after the scores were compiled the following results were posted in the aggregate matches: 50-yard aggregate, H. M. Cline, 268 x 300, receiving a plaque donated by the Hertzberg Jewelry Company and a silver medal; second, Don Nissen, 260; third, Jack Louthan, 258. Timed-fire aggregate, Jack Louthan, 289; second, Sgt. R. Kirby, 283, and third, Askins, 280. Rapid-fire aggregate, Askins, 285; second, Sergeant Wilzewski, 280; third, Don Nissen, 277.

The five high in the State Championship Match were: Charles Askins, Jr., El Paso, 555 x 600; Don Nissen, San Antonio, 550; Sgt. R. Kirby, Fort Bliss, 541; Sgt. R. V. Wilzewski, Fort Bliss, 539; Jack Louthan, Norman, Okla., 533.

In the State Team Championship, the El Paso Rifle Club came through with flying colors, defeating the defending champions of the Liberty Club by 18 points. The members of the El Paso team were Charles Askins, Jr., Sgt. R. Kirby, Sgt. R. V. Wilzewski and Sgt. E. Yerzewski.

The first day's re-entry match was won by H. M. Cline with 278 and the second day by Sgt. R. V. Wilzewski with 281.—L. L. CLINE.

WARNING

HAROLD E. MUELLER, 123 North Parkside Ave., Chicago, Ill., reports that a .38-caliber Colt Detective Special revolver was stolen from his automobile on August 1.

CALIFORNIA PISTOL MATCHES

THE Annual State Championship Pistol and Revolver Matches of the California State Rifle Association were held on June 10 and 11 at the Los Angeles police range instead of at San Luis Obispo, as previously, because of the splendid facilities, with target pits, at the Los Angeles range and also because the majority of the entrants have always come from south of Bakersfield, thus making Los Angeles the logical central gathering point. The attendance was the best of any year. Capt. J. H. Harris was range officer.

Officer J. J. Engbrecht, of the L. A. police, again won the Individual State Championship with a score of 1,092 out of a possible 1,200, being the aggregate of

the 5 individual matches. The L. A. police team won both the open and the Police Team Championship matches, the former with 1,400 x 1,500 and the latter with a record score of 1,416 x 1,500. The Women's Championship was won by Mrs. Myrtle Pease, of San Diego, with 193 x 200. Mrs. Portia Seymour, who held the title for the past two years, placed second with 190.

The three high in the matches were:

Silhouette Match: M. E. Wheeler, L. A. police, 95; C. E. Ward, L. A. police, 94; Lee J. Young, L. A. police, 93.

State Association Match: J. E. Engbrecht, L. A. police, 280; Mark E. Wheeler, 277; Joe Dircks, L. A. police, 276.

Hardy Rifle and Left Hand Match: Arthur Burk, San Francisco police, 269; Rodney S. Pease, San Diego police, 267; Joe Dircks, L. A. police, 265.

Individual Pistol Match: J. J. Engbrecht, L. A. police, 288; C. E. Ward, L. A. police, 287; Rex S. Hunter, Bakersfield, 284.

.22-Caliber Shot-Fire Pistol Match: Joe Dircks, L. A. police, 192; Rodney S. Pease, San Diego, 189; James E. Davis, L. A. police, 187.

Ladies' Pistol Match: Myrtle M. Pease, San Diego, 193; Mrs. Portia Seymour, Alhambra, 190; Marion Semmelmeyer, Beverly Hills, 186.

Servicemen's Pistol Match: E. S. Peterson, U. S. S. Maryland, 255; A. W. Kowalski, U. S. S. Nevada, 253; E. H. Barber, U. S. N. Long Beach, 251.

Individual State Championship: J. J. Engbrecht, L. A. police, 1,092; C. E. Ward, L. A. police, 1,073; M. E. Wheeler, L. A. police, 1,073.

State Team Championship Match: Los Angeles police, 1,416; Los Angeles police, second team, 1,385; California highway patrol, 1,368.

Open Team Match: Los Angeles police, 1,400; San Diego police, 1,389; Los Angeles police, second team, 1,383.

The average of the scores was a full 10 points higher than they run at the San Luis Obispo range and it certainly looks as though the California shooters had been handicapping themselves in the Army Corps Area shoot by using the open range at San Luis instead of the pit ranges of Los Angeles.

The new design California State Rifle Association medals met with considerable favor, and the gold championship medals were worthy of the occasion. The usual trophies were augmented by the State Association trophy awarded in the State Association Match over the N. R. A. Course.—ART. E. SEYMORE.

CHALLENGES

W. Russell O'Neill, 75 years and 6 months of age, of 1319 Oregon Ave., Steubenville, Ohio, issues a challenge to riflemen 73 years of age or older under the following conditions: Dewar course, 5 shots in each of 4 bulls at 50 yards and 10 shots in each of 2 bulls at 100 yards, prone position, metallic sights, any .22-caliber rifle, N. R. A. standard targets, targets to be signed by the competitor and 2 witnesses, age of competitor to be written on the targets.

The Eaton Rifle Club, Olean, N. Y., desires matches with clubs in southwestern New York and northwestern Pennsylvania at 75 feet indoors or 200 yards outdoors. Address John J. Crowley, 214 North Clinton St., Olean, N. Y.

Robert Provere, of St. Edward, Nebr., and a companion shooter are seeking two-man team postal matches, prone, metallic sights, any distance, small-bore rifles.

24 OUT OF 27

MATCHES AT BISLEY, ENGLAND WON WITH PALMA

The shoot held annually at Bisley, England, is one of the world's largest small-bore competitions. This year it was held July 10-15. It draws crack shots from all over the world. There are more entries and more matches than in any other small-bore shoot.

Palma always gives a good account of itself in these matches against all the foreign and American makes of ammunition. This year, after winning every rifle match at Sea Girt, Palma almost swept the field clean at Bisley, winning 24 of 27 open matches and a great majority of the other high places. Read the record and stick to Remington .22's—Kleanbore or Palma.

BISLEY MEETING 1933

HOME COUNTRIES INTERNATIONAL COMPETITION. (Teams of ten)

England first: 2950.

Eight used Palma, including first five.
Top Score for Scotland made with Palma.
Top Score for Ireland made with Palma.

DEWAR INTERNATIONAL MATCH

England 7829.

Fifteen out of twenty used Palma, including first nine.

INTERNATIONAL 50 METERS MATCH

Seven out of ten used Palma, including first six.

THE COUNTY "SEXTETTE" COMPETITION (Teams of six)

Surrey first: 1188.
All used Palma.

THE EARL ROBERTS—NATIONAL CHAMPIONSHIP

Sixteen out of twenty used Palma, including first seven.

THE "NEWS OF THE WORLD" COMPETITION

First six used Palma.

THE "DAILY MAIL" COMPETITION

First three used Palma.

THE BRITISH LEGION COMPETITION

First three used Palma.

THE HUGHES "R" COMPETITION

First three used Palma.

THE B. S. A. COMPETITION

Five of first eight used Palma, including the first three.

THE PARKER-HALE COMPETITION

First three used Palma.

THE VICKERS-ARMSTRONGS COMPETITION

First four used Palma.

THE ASTOR

First and second used Palma.

THE GRAND AGGREGATE

First six used Palma.

THE HOWARD CHALLENGE CUP (Teams of four)

Addiscombe first. All used Palma.
Ham & Petersham second. All used Palma.

THE HAMBLEDON COMPETITION (Teams of four)

Ham & Petersham first. All used Palma.

THE JAEGER CHALLENGE TROPHY (Teams of four)

Britannic House first. All used Palma.

THE CHEYLESMORE CHALLENGE CUP (Teams of three)

Britannic House "A" Team first. All used Palma.

THE MAJOR T. SUTTON

First Place Palma.

THE LORD WAKEFIELD

First Place Palma.

THE BRYANT AND MAY

First and Second used Palma.

THE VISCOUNT PLUMER CHALLENGE TROPHY

First and Second used Palma.

THE WATERLOW

First and Second used Palma.

THE FINAL STAGE OF THE QUEEN ALEXANDRA CUP (Teams of six)

Sussex first: 2418.
First five of team used Palma.

Palma Wins A 11

PALMA MATCH

AND

Remington

KLEANBORE



SWEEP N. R. A. SPRING MATCHES

The N. R. A. Outdoor Postal Matches went Remington with an overwhelming number of victories. The results, from 25 Bulletins covering .22 rifle and rim fire and center fire pistol and revolver matches, follow:

- 16 First Places.....64% of the WINS
- 17 Second Places.....68% of the Second Placings.
- 17 Third Places.....68% of the Third Placings
- 177 x 241.....73.4% of all MEDAL WINNERS.
- 890 x 1347.....66.0% of all shooters—shot Palma Match or Kleanbore.

AMONG THE MORE IMPORTANT SCORES AND WINS WITH REMINGTON WERE:

N. R. A. INDIVIDUAL SPRING CHAMPIONSHIP

(The Small Bore Grand Aggregate)

- 1. Leo Kaufman, Kintyre, N. Dak. 800—33X's.
- 2. M. E. Altimus, Sr., Nanty Glo, Pa.—800—32X's.
(Also the next eight places, and 18 of first 20. In fact, almost everyone shot Palma Match or Kleanbore except Andrew H. Brown who was driving the taxicab to Chicago.)

50-YARD SPRING CHAMPIONSHIP

- 1. Leo Kaufman, 400—37X's
(Also seven of first ten)

100-YARD SPRING CHAMPIONSHIP

- 1. Leo Kaufman, 400—33X's.
(Again seven of first ten)

200-YARD SPRING CHAMPIONSHIP

- 1. G. E. Lindsay, Burke, Va., 199 x 200.
(For a third time, seven of first ten)

INDIVIDUAL DEWAR

- 1. Mark R. M. Gwilliam, Bloomfield, N. J., 399—15X's.
(Also the next ten)

INDIVIDUAL JUNIOR CHAMPIONSHIP

- 1. Myles Altimus, Jr., Nanty Glo, Pa., 400.
(Also 18 of first 20)

DEWAR TWO-MAN TEAM MATCH

- 1. C. G. Hamby and Harry M. Paschal, Jr., 797 x 800.
(Also 17 out of 20 on first ten teams)

ANY SIGHT, TWO-MAN TEAM MATCH

- 1. V. A. Moore and R. C. Pope, 796 x 800.
(Also thirteen on first ten teams)

LONG RANGE, TWO-MAN TEAM MATCH

- 1. W. J. Giger and C. M. Pittman, 389 x 400.
(Also thirteen on first ten teams)

PLUS ALL THE OTHER WINNERS WE WOULD GLADLY LIST WERE SPACE AVAILABLE

In two recent issues of the American Rifleman we have filled eight pages with the names and scores, and the targets, of men and women who have chanced their skill and their hard-earned dollars and shooting reputations on the phenomenal accuracy of Remington Palma Match and Kleanbore .22's. We would need thrice the space to list even a fair percentage of all who have won the Medals of Victory with Remington.

If you want to win consistently—there is just one make of ammunition. Records prove it!

REMINGTON ARMS COMPANY, INC., Bridgeport, Conn.

Originators and Sole Manufacturers of Kleanbore Ammunition

Over The World

YAKIMA LONG-RANGE SHOOT

THE seventh annual long-range classic, staged by the Yakima (Wash.) Rifle Club as a practical outdoor laboratory for the development of better rifles, equipment and ammunition components, came to a successful conclusion on the afternoon of July 4.

In the Buddy Match, 20 shots at 1,000 and 1,200 yards, the combination of H. O. Scofield, of Tacoma, and Norman Glossbrenner of Yakima, fired a total of 365 and won the Yakima Chamber of Commerce trophy and first-place medals. Eugene Hicker and Roy Meister, of Seattle, placed second with 351. Mr. and Mrs. C. R. Secord, of Seattle, were third with 346.

W. F. Pulver, U. S. M. C., Bremerton, won the Yakima Match at 1,000 yards with 98. Roy Meister was second with 95 and J. C. Blodgett, U. S. M. C., third with 94. The Wenatchee Rifle Club trophy went to the winner.

The Northwest Long-Range Championship, aggregate of the Moxee and Yakima matches, was also won by Pulver with 182, although C. R. Secord beat him out for first place in the 1,200-Yard Moxee Any-Sight Match with his score of 89, as did Glossbrenner with an 88 for second-place. E. G. Park, of Lynden, was third in the Moxee Match with 87. It was the Marine's good work in the Yakima Match that won for him the title of Northwest Long-Range Champion. Meister was second in the race for the championship, only one point below Pulver, and Glossbrenner was close with 180 for third place.

Park, who fired a service rifle, was awarded a newly-added trophy for light rifles in the difficult Moxee Match and its companion match, the Yakima. This trophy is a magnified replica of the .30-06 case in highly polished brass and stands some 15 inches high. Where these 2 matches are fired with sniper equipment, there is also another special trophy for the high aggregate. This trophy is of a special alloy closely resembling solid gold and closely follows the contour of the 180-grain Western modified boat-tail match bullet and stands point downward on a base of the same metal. It is known over the Northwest as the Bentler trophy. In the contest for this trophy, Pulver's 182 was high and Meister's 181 was second. J. C. Blodgett, U. S. M. C., was third with 180.

The only signal defeat of Lieutenant Mattison's U. S. M. C. contingent in this three-day battle was in the fight for the trophy presented by the Veterans of Foreign Wars. This trophy was won by the better equipment and fine marksmanship of Meister, of the Seattle Rifle and Pistol Club, with an aggregate in the 1,000- and

1,200-yard stages of the Buddy Match, the Yakima, and the Moxee, of 367. Blodgett was second with 360 and Glossbrenner third with 359.

In the Camp Perry Match at 1,000 yards, Meister's 48 was better than Blodgett's. Glossbrenner was a close third with 47. A second 15-inch .30-06 case was awarded Meister in this close contest. W. C. Eggers, U. S. M. C., won the third engraved .30-06 trophy with the assistance of his buddy, H. Arnold, with the service rifle in the Buddy Match, with a team total of 331. A. S. Long, executive officer of the Yakima Rifle Club, won the W. L. Breece trophy for high individual of the Yakima Rifle Club, eligible under the rules, with an aggregate of 328.

Maj. John M. Curry, of old Palma International fame, was chief range officer, and M. O. Dodge, of the Ellensburg Rifle Club, was statistical officer. Results of the match were ready for publication 30 minutes after the last shot was fired.

Eleven 2-man teams fired the Buddy Match. Winners of all matches, without exception, used high-class equipment and hand-loaded ammunition. Some had the correct combination, and some others lacked only more outdoor range experience to have made the competition even keener. The lowest velocity loads used in this laboratory for sustained energy was 1929 National Match.—FRED P. WATE.

NEBRASKA CHAMPIONSHIPS

THE Nebraska State Small-Bore Outdoor Championship Shoot, held July 15 and 16 at Columbus, Nebr., was favored by excellent weather conditions with the result that the rifle and pistol team scores were the highest ever fired in match competition in the state. Approximately 60 individuals competed. Results were:

Rifle Team Match: Norfolk, 1,953; Columbus, 1,935; Valentine, 1,917.
Pistol Team Match: York, 1,485; Norfolk, 1,410.

Individual Rifle Championship: Art Lamile, Norfolk, 398; D. Gregg, Norfolk, 395; J. Eucks, Norfolk, 394.

Individual Pistol Championship: H. Drake, York, 325; D. Jones, Omaha, 323; M. Pitman, York, 317.

Grand Aggregate: Art Lamile, Norfolk, 711. (M. Pitman, Columbus, also had 711 but was outranked.)

Women's Match: Mrs. Glee Meier, Omaha, 357; Gertrude Lips, Columbus, 357; Mrs. Eva Conrad, York, 324.

INTERNATIONAL SHOOTING UNION SMALL-BORE CHAMPIONSHIPS

PRELIMINARY scores of the International Small-Bore Team Championship at 50 meters, conducted at Grenada, Spain, under the auspices of the International Shooting Union, show Sweden as the winner with a score of 1,935 x 2,000, Finland placing second with 1,921, and Great Britain, third, 1,919.

THIRD ANNUAL TRI-STATE MEET HELD BY BUTLER CLUB

THE Tri-State Tournament at Butler, Pa., is again history.

This tournament, started in 1931, is held by the Standard Steel Car Corporation Rifle Club, of Butler, and sanctioned by the National Rifle Association of America. The Standard club is one of the most active clubs in the country. It fires over 100 shoulder-to-shoulder matches during the year and has on its roster men in every walk of life. The range of the club is at Alameda Park, 2 miles from the city, and is said by many to be the finest club-owned range in the country. It is a level mass of green, the firing points, which are 9 feet in length, being elevated above the range level and are grass sodded. As Major Hession expressed it, they reminded him of Bisley. An abrupt rising hill at the end of the range forms the backstop. The range accommodates 65 men at one time.

The success of the matches was due in a great degree to the supervision of Maj. John W. Hession, of the Winchester Arms Company, as chief range officer. He was assisted by A. B. MacMullen, of the Western Cartridge Company. This was the Major's first visit to this section and he left Butler with a host of new friends. In the statistical office, Joseph Witherpoon, the statistician, was assisted by Virgil Richard, from the Remington Arms Company. Virgil is a landmark at the matches.

Prior to the matches, it had rained for a month straight, and the old reliable gum boots could be seen on those who were, we should say, lucky to bring them along. Old man wind and rain was not satisfied with its visit of a month, but stayed with the boys for company, helping in no way to increase their hold on their religion. But for all the wind, a few records were broken.

Monday, May 29, the first day of the meet, found the boys hot after the 200-yard Tri-State Championship and the Free Rifle 100-Yard Match. No records were smashed in either as the wind was tearing across the range in 3 directions. The 200-Yard Match ended with E. E. Hodil, of Etna; H. Dunlap, of New Castle, and R. E. Louden, of Butler, tied with 190, but in the ranking Hodil received first place and the trophy. In the Free Rifle Match, J. I. Davis, of Pittsburgh, took top honors with a 277 score; R. E. Louden, of Butler, second with 273, and Merle Iraelson, of Corry, third with 270.

Tuesday, May 30, the big day of the meet, started off with plenty of wind and a continual light changing, but in spite of this the record for the match was broken when Scott Romig, of Uhrichsville, Ohio, hung up a 399 in the Tri-State Individual Championship over the Dewar

Course. Romig received the Butler Eagle trophy. Second place went to R. E. Rainsberger, of Uhrichsville, with 394, and third place to A. Salkeld, of Indiana, with 392.

The second match of the day, the Tri-State Two-Man Team Championship for the Dallas Young Trophy, found Merle Israelson, of Corry, and R. E. Louden, of Butler, at the top of the list with 789. Second place went to W. Vetter and G. Hodgkinson, of New Brighton, with 785. Scott Romig and D. Vinning, of Uhrichsville, Ohio, were third with 783.

The third day opened with the Tri-State Individual Any-Sight Championship at 50 and 100 yards. First place was taken by Israelson with 397. He received the Jim Lyon trophy. Second place went to R. E. Louden, Butler, with 396, and third place to W. Wilson, of Erie, with 396.

In the Individual Small-Bore Championship, an aggregate of matches 3 and 5 for the American Legion trophy, first place was taken by Scott Romig with 789; second place by R. E. Louden, 788, and third, Merle Israelson, 788.

The last day of the meet, June 1, the Five-Man Team Championship Match was fired, the Uhrichsville Rifle Club winning with 1,955, taking possession of the Conway trophy. The Standard Steel Car Corporation Rifle Club took second place with 1,934.—R. E. LOUDEN.

NEW YORK NEWS STAGES SHOOT FOR BOYS

FORTY-SEVEN teams participated in the First Annual Independence Day Rifle Shoot sponsored by the *Daily News*, one of New York's most enterprising newspapers.

Aware of the increasing difficulty for New York boys to indulge their natural love of shooting, Paul Gallico, sports editor of the *News*, arranged to obtain all the necessary supplies and organized the shoot. For three weeks before the match an intensive program of instruction and interesting anecdotes about the shooting game filled the sports section and, as a result, interest was at fever heat when July 4 came around.

The contest was open to teams of 4 boys and one substitute between 16 and 19 years of age. Contestants were divided into 3 groups: the open group, firing for the Davey Crockett trophy and individual medals; the Boy Scout division, competing among themselves for the Kit Carson trophy and medals, and the High-school class, striving for the Daniel Boone trophy and individual awards.

An excellent new rifle, the Winchester 60A Target rifle, now equipped with the

target sights and a sling, was the gun selected by the *News* for the use of the contestants. There were plenty of them on hand and they performed very nicely. Winchester Staynless ammunition was used.

The conditions of the match called for 5 shots prone and 5 standing at 75 feet. Due to the restricted facilities in the 71st Regiment Armory rifle range, where the match took place, sighting shots were not allowed and the sights on the guns (Lyman 55), although readily adjustable, were not moved after being sighted in for that distance.

At 8 a. m. the first few early birds came hurrying to the armory. The officials arrived soon after and the match, scheduled for 9 o'clock, started on time.

The contestants were registered on the drill floor of the armory, given their targets and sent downstairs. There, in the gymnasium, Capt. Fred C. Mills, national director of the Boy Scouts of America and a director of the N. R. A., lectured them on the safe and accurate handling of the rifle. A feature of his interesting talk was the way he would take a jack-knife, open it, extend it point foremost, and ask for comments. From that it was but a step to explain that the same principles of safety that applied to the knife were true with the rifle. Captain Mills plugged away at his task all morning, giving the same talk every 15 minutes to a new batch of boys.

When Captain Mills was through with them, Maj. John W. Hession, Ordnance Reserve, a champion rifle shot and a swell fellow (which remarks are for the benefit of those who don't know him yet), took the boys in hand. As chief range officer, Major Hession kept the shoot running along nicely and no trouble or delay was encountered. Included among the assistant range officers were J. Steiner F. Kelly, Sergeants Irenstein and Hanley, P. Teitelbaum, A. Koefer, M. Davidowich, M. Rivisto, M. Plishner, D. Sklar, W. Stemple and H. Austern.

After firing their 5 shots prone apiece, each squad moved downstairs to the revolver range, where they fired their off-hand scores. The targets were then put together and sent to Lt. John A. Diets, of the 71st Regiment for scoring. Lieutenant Diets was ably assisted by Lts. S. L. Kovacs and James Fogarty, 1st Sgt. Kenneth Kamp, Sgt. William F. W. Cody, and Cpl. Paul Weston. Thanks is due them for their rapid and accurate disposal of their job.

After running like clockwork for 4½ hours, the match was finally over. Lieutenant Diets had the results almost immediately. The Davey Crockett trophy became the prize of the St. Albans Junior Rifle Club. The winning team was com-

posed of Thomas M. Lewis, captain; Edwin F. Lake, Harlow M. Chapman and Hartley J. Dunton, with a team total of 304. Lake was high individual with 86 x 100.

Kenneth McVeigh, captain; James Allen, Jack Kent and George Kaaber, representing Boy Scout Troop 124, Bronx, came through with 158 to win the Kit Carson Trophy.

The High-school teams bowed in defeat to DeWitt Clinton's marksmen. Herbert Greenberg, captain; Henry Baas, Howard Mehrtens, and Aristede Grippo rolled up a total of 297 to walk off with the Daniel Boone trophy and medals.

Single-bull targets were used, the card measuring 6 by 6½ inches. The 4 gunners representing the Paragon Athletic Club managed to throw 40 bullets at the targets without even nicking the paper once. This is some sort of a record and we are still wondering if there is any award at all suitable for this unique achievement.

The *News* and Mr. Gallico deserve the warmest and most sincere commendation and thanks of the riflemen of America for a shoot that did so much toward further popularizing the sport of rifle marksmanship. This is, we hope, the first of many similar meets, celebrating the day on which this nation proclaimed its independence with the means whereby we gained and held it.—HAROLD AUSTERN.

COMING EVENTS

The Tenth Annual Outdoor Matches of the Metropolitan Rifle League, Inc., of New York, will be held on September 17, October 1 and October 8. The Outdoor Championship Match, 10 shots at 50, 100, 150, 175 and 200 yards, any .22-caliber rim-fire, will be held at the Outer's Club ranges near White Plains on September 17. The Qualification Match, Course D, any .30-caliber with iron sights and 3-pound pull, will be held October 1 and the 1,000-yard match, any rifle, any sights, will be held October 8, both at the New York state range at Peekskill. N. R. A. members desiring to enter the 1,000-yard match of the N. R. A. Fall Match Program can, by shooting the M. R. L. Match, have their scores counted for both matches. For further particulars, address Edward Smelter, executive secretary, 3 Agate Ave., Ossining, N. Y.

The Seventh Southwestern Pistol and Small-Bore Rifle Tournament will be held on the new range of the Trinity Rifle Club, Dallas, Tex., September 30 and October 1. The new range is less than a mile from the business district and is within the city limits. There will be about 10 matches for the pistol shooters and a like number of the small-bore rifle events. For further information and programs write Thurman Randle, 801 Allen Bldg., Dallas, Tex.

The Wisconsin Rifle Association announces the following matches: September 2, 3 and 4, N. R. A. Regional Matches at Camp Douglas, now in process of organization; September 17, Southern Wisconsin Rifle League International 300-Meter Matches at Madison. For further particulars address Fred Rufalo, secretary, Wisconsin Rifle Association, 923 Forest St., Racine, Wis.

The Second Annual North Atlantic States Pistol Team and Individual Championship Matches will be held at the Hartford Gun Club range at Knott's Corners, Farmington, Conn., on October 8. For further information, contact John P. Leonard, president, Hartford Revolver and Rifle Club, Hartford, Conn.

The Seventh Annual Kitsap Intercity Rifle and Revolver Match will be held on September 24 over the Kitsap Rifle and Revolver Club's range at Camp Wesley Harris, near Bremerton, Wash.

The Hudson Valley (N. Y.) Small-Bore Championship Shoot will be held September 9 and 10 on the Poughkeepsie Rifle Club range, 4 miles east of Poughkeepsie, with re-entries listed for the first day and 50-yard, 100-yard and 200-yard matches and the P. R. C. Dewar Match the second day. The club house will be open Saturday night and cots provided for those wishing to remain overnight. The range has 24 covered firing points and the matches will be held rain or shine. For further particulars, address Guy N. Morehouse, 5 Oak Crescent, Poughkeepsie, N. Y.

The Yellowstone Rifle Club, Billings, Mont., will hold its Third Annual Midland Empire Small-Bore Rifle Tournament on September 3 and 4. Eight individual and 2 team matches are contemplated. For full details, address A. C. Hoefer, secretary, Yellowstone Rifle Club, Billings, Mont.

The First Annual Small-Bore Tournament of the Owen (Wis.) Rifle and Pistol Club will be held at Owen on September 10 with 50- and 100-yard prone matches and a Dewar course match (an aggregate), metallic sights, listed. For program, send post card to L. E. Bulgrin, secretary, Owen Rifle and Pistol Club, Owen, Wis.

The Small-bore Outdoor Championships of Western Massachusetts will be held September 10 at the G. E. athletic field, Dalton Rd., Pittsfield, Mass. For particulars, address A. R. Peck, secretary, G. E. A. A. Rifle Club, Pittsfield, Mass.

The Saginaw (Mich.) Rifle Club will hold its Second Annual Pistol Tournament at the club range on Sunday, September 10, beginning at 10 a. m. There will be 4 events besides a number of novelty matches, such as shooting at tom-cat targets, elephant targets, plinker targets, etc. For full particulars, address John D. Leppert, 729 S. Fourth Ave., Saginaw, Mich.

The Interdivisional and East Coast Pistol Matches, sponsored by the New Jersey National Guard, will be held at Sea Girt on September 9. For further details, address Col. Edward Olmstead. Both events will be fired in the afternoon.

The Arlington (Mass.) Rifle Club will hold its first anniversary shoot on September 16 and 17 over its range at Woburn with 6 rifle matches and 3 pistol and revolver matches. For full particulars, address Melvin H. Chapin, secretary, 235 Gay St., Arlington, Mass.

The Pennsylvania Dutchmen's Small-Bore Tournament will be held September 16 and 17 on the range of the North End Rod and Gun Club, Fullerton, Pa., north of Allentown. The program calls for 7 squared events, topped off by a 50-shot championship match at 100 yards and a 30-shot iron-sight championship match at 50 yards.

The Eighth Annual Lehigh Valley Championship Shoot will be held October 8 on the range of the North End Rod and Gun Club, Fullerton, Pa., north of Allentown. The conditions are twice over the Dewar course, once with iron sights and once with telescope sights.

The Frontier Gun Club, Royalton, N. Y., will hold its Second Annual Small-Bore Meet on September 10. For further information, address Dean Barrows, 120 East Main St., Lancaster, N. Y.

The Elizabethtown (Pa.) Rifle Club will hold small-bore meets on September 3, October 1, and November 5 at the Gainsburg range on Route 230, between Elizabethtown and Middletown. For complete details, address O. H. Schwanger, R. D. No. 1, Middletown, Pa.

The Philadelphia Rifle Association has listed the following matches: September 9, small-bore Dewar match; September 30, club rifle championship; October 21, all-around championship match. Rating medals may be shot for on the outdoor range any Saturday or holiday until October 28 and on the indoor range on any Tuesday or Friday night.

The Champaign-Urbana (Ill.) Rifle Club has scheduled matches for September 10, September 24 (Central States Qualification Match), and October 1. Four trophies will be awarded to each match. For complete details, write J. F. Lorch, secretary-treasurer, 117 West Water St., Urbana, Ill.

The Fort Pitt Rifle Club, Pittsburgh, Pa., lists the following matches for this month: September 2, rising-bear match for Robert G. Atkinson trophy and running-deer match for Paul Muzzio trophy; September 9, 300-yard prone match for H. G. Mauk and M. J. Kane trophy; September 16, hunters' running-deer match for C. W. Freehling trophy and 50-yard rising-bear revolver match for T. C. Beal trophy; September 23, 200-yard offhand match for I. Lamont Hughes trophy; September 30, 200-yard rapid-fire match for E. W. Stone trophy.

The Illinois State Rifle Association has scheduled matches for September as follows: September 2 to 6, Illinois N. R. A. matches; September 17, Illinois State Individual Small-Bore Championship.

The Fourth Annual Small-Bore and Bergen County Championships will be held at the range of the Post Rifle and Pistol Club of Allendale (N. J.), Inc., on September 10.

Guns vs. Bandits

Buffalo Police Head Would Arm Citizens

EXTERMINATE gangsters with guns. Fight fire with fire . . . If I had my way, I would arm honest, dependable citizens and declare open war on all manner of gangsters. I would shoot on sight. If the gangsters were obliged to face the same weapons they use in menacing honest citizens, they would change their tactics."—Police Commissioner Roche, of Buffalo, N. Y., as quoted in the Buffalo *Times*, July 11.

Encourage Shooters, California Official Urges

"Police officials should encourage use of concealed weapon permits by responsible citizens. They should see that the citizen is qualified to use a gun. Target practice clubs would be one method. . . . The citizen is embarrassed by red tape and gives up the idea of carrying a gun for protection. Knowledge that a large part of the public is armed would be an important crime restraint."—Charles H. Stone, Assistant to the Chief of the California Bureau of Criminal Identification.

Another Sullivan Law Farce

"A beer salesman who thwarted the attempt of 5 thugs to take him for a ride shortly after midnight was himself arrested for possession of the .44-caliber revolver he wrested from one of his would-be kidnappers."—New York *Daily News*, June 15.

Bank Cashier "Gets" Two Escaped Convicts

The exacting marksmanship of Isaac McCarthy, cashier of the Labette County State Bank at Altamont, Kans., on July 14, saved the bank from robbery by killing one of 2 bandits and critically wounding the other and preventing the possible kidnapping or murder of his wife who was being held as a shield by the slain bandit.

Suspicious of the 2 men, both of whom were among 11 who escaped from the Kansas penitentiary on May 30 by kidnapping the warden, McCarthy hid behind a curtain, where he had his weapons concealed, as they entered the bank. When his suspicions were confirmed, McCarthy opened fire with a shotgun, wounding one bandit. The other then seized Mrs. McCarthy, an employee of the bank, to shield himself from the gunfire and threatened to kill or kidnap her. Laying aside the shotgun because of this new situation, McCarthy, having to use extreme care not to hit his wife, brought a rifle into play and killed the holdup man instantly.

As a reward, the bank official received a \$500 check from the Kansas State Bankers' Association.

Another Bank Cashier's Heroism

Russell Hale, cashier of the Mauston (Wis.) State Bank, frustrated a holdup of the bank on May 15 when he opened fire on 2 armed bandits with his rifle, fatally wounding one of the men and capturing the other.

Held Up, Motorist Kills Bandit

Making use of his own pistol rather than submit to robbery when stopped by 2 bandits while he was motorizing with his wife near Hot Springs, Ark., on June 26, W. P. Westmoreland, of Houston, Tex., killed one of the holdup men and gravely wounded the other. The bandits were both ex-convicts.

Two of 3 bandits who attempted to hold up the tavern of George Capedona in Chicago on July 17 were killed and the third fled when Peter Capedona, a brother of the owner, fired upon them with a rifle from behind a partition. Two of the bandits were armed with shotguns and the third with a pistol. The place had been held up twice previously within a period of 2 weeks.

One of 4 bandits was seriously wounded by Robert Simon, who used a shotgun, as they were leaving a shop in Chicago after having held up the place on June 10.

One bandit was critically wounded in an attempt to hold up Olin Yale, a garage proprietor, in Uniondale, Pa., on May 8, when Yale beat his 2 molesters to the draw. The second bandit fled.

When 2 bandits drew revolvers on him in a Chicago drug store on June 7, Louis Wayjay, a clerk in the store, drew forth his own gun and opened fire. One bandit fell dead while the other fled.

Although hit in the neck by a bullet from the gun of a burglar whom he surprised while ransacking his home on June 21, George A. Lyon, Jr., Peoria, Ill., fired a shot that instantly killed the intruder.

Using their guns to such good advantage that they scored six hits out of seven shots, two border patrolmen, who engaged in a pistol fight with three Mexicans who opened fire on them when caught climbing to the American side of the Rio Grande, killed two of the Mexicans and wounded the third. Neither of the patrolmen was injured. Subsequent investigation divulged that one of the Mexicans was a fugitive from justice, being wanted in New Mexico in connection with the murder of a family of seven.

Outdoor Matches

Bulletin No. 21

AMERICAN INDIVIDUAL DEWAR (126 Entries)

Conditions: Twenty shots for record at 50 yards; 20 shots for record at 100 yards. To the winner a gold medal; second, a silver medal; third to tenth, bronze medals. Metallic sights.

1. Mark R. M. Gwilliam, Bloomfield, N. J.	399-15X's
2. Vere F. Hamer, Woodstock, Minn.	399-10X's
3. Fred Johansen, Joliet, Ill.	399
4. Stuart C. Edmonds, Penn Yan, N. Y.	399
5. A. L. Dunagan, Whitefish, Mont.	398
6. E. M. Anderson, Des Moines, Iowa	398
7. B. R. Goldsberry, Athens, Ohio	398
8. Ralph Cory, Newton, Iowa	398
9. R. C. Pope, Dallas, Tex.	398
10. B. G. Dwyer, Syracuse, N. Y.	398

Bulletin No. 22

INDIVIDUAL 200-YARD SMALL-BORE SPRING CHAMPIONSHIP (77 Entries)

Conditions: Twenty shots for record. To the winner a gold medal; to the high competitor using iron sights, provided he is not the winner, a sterling silver medal. Nine bronze medals to the remaining highest nine competitors. Percentage medals.

1. G. E. Lindsay, Burke, Va.	199
2. M. R. M. Gwilliam, Bloomfield, N. J.	197
3. P. N. Bretz, Carlisle, Pa.	196
4. J. R. E. Miller, Appleton, Wis.	196
5. H. C. Nielsen, Neenah, Wis.	196
6. S. C. Edmonds, Penn Yan, N. Y.	196
7. Dr. T. F. Bressee, Odessa, Wash.	194
8. L. A. Gustafson, Katonah, N. Y.	194
9. H. M. Paschal, Jr., Atlanta, Ga.	194
10. Wm. J. Kelley, Southbridge, Mass.	193

Bulletin No. 23

DEWAR COURSE TWO-MAN TEAM (31 Entries)

Conditions: Twenty shots for record per man at 50 yards and at 100 yards. To the winner, a sterling silver medal; second to tenth teams, bronze medals.

1. Chas. G. Hamby, Atlanta, Ga.	400
2. Harry M. Paschal, Jr., Atlanta Ga.	397
	797

2. Earl Mercier, Joliet, Ill.	398
Fred Johansen, Joliet, Ill.	398
	796

3. Oscar Anderson, Owen, Wis.	400
L. E. Bulgrin, Owen, Wis.	393
	793

4. Mathew H. Canjar, Denver, Colo.	397
Floyd H. Gudgel, Denver, Colo.	395
	792

5. T. J. Toler, Fort Worth, Tex.	394
B. H. Hutchison, Fort Worth, Tex.	397
	791

Bulletin No. 24

LONG-RANGE TWO-MAN TEAM (18 Entries)

Conditions: Twenty shots for record per man at 200 yards. To the winners, a sterling silver medal; second to tenth teams, bronze medals.

1. W. J. Giger, Columbus, Nebr.	198
C. M. Giger, Columbus, Nebr.	198
	389

2. L. A. Seibert, Dayton, Ohio	193
C. G. Kallensee, Dayton, Ohio	193
	386

3. R. M. Edmonds, Elmira, N. Y.	193
S. E. Edmonds, Pen Yan, N. Y.	193
	386

4. Chester R. Secord, Seattle, Wash.	193
Edna M. Secord, Seattle, Wash.	193
	386

5. W. M. Garlington, Chicago, Ill.	195
Carl T. Dunn, Chicago, Ill.	190
	385

Bulletin No. 25

ANY-SIGHT TWO-MAN TEAM (36 Entries)

Conditions: Twenty shots for record per man at 50 yards and at 100 yards. To the winner, a sterling silver medal; second to tenth teams, bronze medals.

1. V. A. Moore, Dallas, Tex.	397
R. C. Pope, Dallas, Tex.	399
	796

2. J. N. McClintock, Walnut, Calif.	399
M. A. Johnson, Pomona, Calif.	395
	794

3. B. G. Dwyer, Syracuse, N. Y.	399
C. A. Kyle, Syracuse, N. Y.	395
	794

4. H. H. Kingsley, Canandaigua, N. Y.	397
W. A. Carr, Canandaigua, N. Y.	396
	793

5. W. O. Boian, Des Moines, Iowa	394
G. G. Cooper, Des Moines, Iowa	399
	793

Bulletin No. 26

HORNET RIFLE MATCH (27 Entries)

Conditions: Twenty shots for record, slow fire, prone. To the winner, a sterling silver medal; second to tenth, bronze medals.

1. Albert L. Dunagan, Whitefish, Mont.	198
2. J. R. Buhmiller, Eureka, Mont.	197
3. C. F. Beindorf, Dallas, Tex.	197
4. M. F. Mathis, Warren, Pa.	196
5. Henry Haase, Hartford, Conn.	195
6. G. W. Scudder, Binghamton, N. Y.	192
7. R. Warren, Jersey City, N. J.	192
8. Dr. J. R. McGuire, San Francisco, Calif.	192
9. Lawrence Gau, Baltimore, Md.	191
10. R. R. Smiley, Bluefield, W. Va.	191

Bulletin No. 27

600-YARD INDIVIDUAL (21 Entries)

Conditions: Twenty shots for record, prone. To the winner, a gold medal; second, a sterling silver medal; to the high competitor using iron sights, provided he is not the winner or runner-up, a silver medal; bronze medals to the remaining eight highest competitors.

1. M. G. Lyutic, Richmond, Calif.	100+132 bulls
2. P. H. Philbrook, Oxnard, Calif.	100+101 bulls
3. G. S. Condit, Warren, Pa.	100
4. J. C. Crenshaw, Greenville, Ala.	100
5. F. O. Peterson, Warren, Pa.	100
6. J. R. Moore, El Paso, Tex.	99
7. A. P. Danforth, Cambridge, Mass.	99
8. G. G. Cooper, Des Moines, Iowa	98
9. W. O. Boian, Des Moines, Iowa	98
10. L. E. Bulgrin, Owen, Wis.	97

Bulletin No. 28

1,000-YARD INDIVIDUAL (13 Entries)

Conditions: Twenty shots for record, prone. To the winner, a gold medal; second, a sterling silver medal; to the high competitor using iron sights, provided he is not the winner or runner-up, a silver medal; bronze medals to the remaining eight highest competitors.

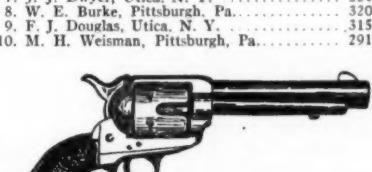
1. P. H. Philbrook, Oxnard, Calif.	100+42 bulls
2. C. R. Secord, Seattle, Wash.	100+7 bulls
3. G. G. Cooper, Des Moines, Iowa	100
4. J. C. Crenshaw, Greenville, Ala.	97
5. E. V. Deshayes, Dragon, Tex.	97
6. H. J. Black, Des Moines, Iowa	96
7. W. O. Boian, Des Moines, Iowa	95
8. L. Anderson, Dragon, Tex.	83
9. Lt. R. V. Strauss, Fort Davis, Canal Zone	79
10. A. Wilson, Dragon, Tex.	78

Bulletin No. 29

TYRO RAPID-FIRE PISTOL (12 Entries)

Conditions: 40 shots for record, fired in strings of 5 shots. Any center fire pistol or revolver. 25 yards, 50-yard Standard American target. To the winner, a sterling silver medal; second to tenth, bronze medals. Percentage medals.

1. George F. Rizzo, Alameda, Calif.	355
2. Theodore G. Gross, Santa Monica, Calif.	349
3. J. P. McNabb, San Gabriel, Calif.	338
4. Robert H. Nau, Ames, Iowa	337
5. F. E. Drake, Alameda, Calif.	337
6. J. W. Thompson, Lander, Wyo.	328
7. J. J. Dwyer, Utica, N. Y.	321
8. W. E. Burke, Pittsburgh, Pa.	320
9. F. J. Douglas, Utica, N. Y.	315
10. M. H. Weisman, Pittsburgh, Pa.	291



Bulletin No. 30

.22-CAL. TYRO RAPID-FIRE (21 Entries)

Conditions: 40 shots for record, fired in strings of 5 shots. Any .22 Cal. pistol or revolver. 25 yards. To the winner, a sterling silver medal; second to tenth, bronze medals. Percentage medals.

1. N. R. Adair, Yuma, Ariz.	385
2. Robert Nau, Ames, Iowa	366
3. F. J. Harrington, Hudson, N. Y.	365
4. L. R. Shiflett, Jr., Birmingham, Ala.	355
5. R. Hatcher, Tucson, Ariz.	355
6. R. A. Wilson, Williamson, N. Y.	350
7. D. Vaughan, Las Cruces, N. Mex.	349
8. J. J. Dwyer, Utica, N. Y.	349
9. M. H. Taylor, Ontario, Calif.	345
10. J. F. Shaw, Grand Rapids, Mich.	339

Bulletin No. 31

.22-CAL. SLOW-FIRE TYRO TWO-MAN TEAM (7 Entries)

Conditions: 40 shots for record per man, slow fire. Standard American target. To the winning team, silver medals; 2nd and 3rd teams, bronze medals.

1. Loren D. Smoultion, Williamson, N. Y.	379
2. Leon R. Stearns, Palmyra, N. Y.	380
	759

Bulletin No. 32

RAPID-FIRE MATCH (15 Entries)

Conditions: 40 shots for record, fired in strings of 5 shots. Any center fire pistol or revolver. 25 yards. To the winner, a sterling silver medal; second to tenth, bronze medals.

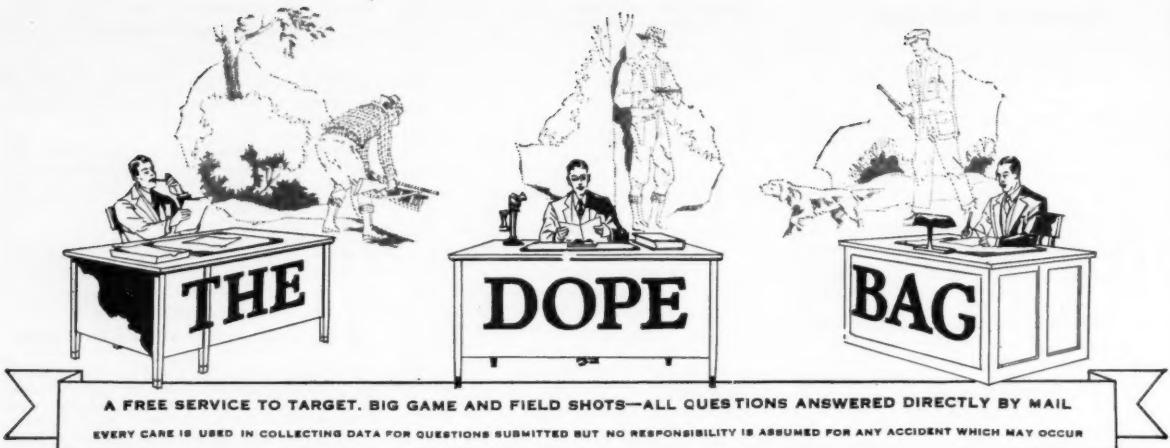
1. J. H. Cataldo, Lyon Falls, N. Y.	384
2. A. G. Freer, Belmar, N. J.	380
3. Lt. J. E. Hughes, W. Bridgewater, Mass.	374
4. I. E. Nitschke, Austin, Tex.	369
5. Nick Lehnen, Medford, Wis.	368
6. S. A. Slavens, Los Angeles, Calif.	360
7. Don Nissen, San Antonio, Tex.	357
8. W. E. Burke, Pittsburgh, Pa.	356
9. R. J. Ferguson, Ossining, N. Y.	347
10. A. O. Nissen, San Antonio, Tex.	344

Bulletin No. 33

.22-CAL. RAPID FIRE MATCH (17 Entries)

Conditions: 40 shots for record, fired in strings of 5 shots. Any .22 Cal. pistol or revolver. 25 yards. To the winner, a sterling silver medal; second to tenth, bronze medals.

1. C. L. Her



Conducted by F. C. Ness

Three Small-Bore Winchesters

The 60-A Target Bolt Action

THROUGH improvements over the Models 59, 60 and 60-A, the 60-A Target Model Winchester has been developed. This is a completely equipped boys' training rifle. With web sling and target sights as a standard it comes to \$13.35. It is a single shot bolt action which must be manually cocked by drawing back the cocking knob, a good feature in a boy's rifle, but annoying for adult use. The knob is given a quarter turn to the right for the "safe" position and, when safe, black letters show that assuring word through an oval hole in the bolt shell on top. When ready to shoot the word "fire" is shown in red letters. This is another score for the Winchester.

The small handle and the neat, short ($2\frac{1}{2}$) bolt and trigger are chromium plated. The other exposed metal parts are smoothly finished and blued or browned very attractively. The deep color is almost black. The walnut stock is oil-finished, dull. The base of the handle forms the locking lug and bolt guide, and the sear is the bolt stop. The face of the bolt is recessed for the heads of high velocity cartridges. It fits squarely against the flat end of the 27" barrel when it is closed, pushing the combination extractor and ejector before it into a cut beneath the chamber. This "kicker" proved positive. The top half of the receiver is cut away for $1\frac{1}{4}$ inches behind the chamber, making loading convenient.

The firing pin makes the typical, narrow, Winchester indent, and its hole in the bolt face is not large enough to invite punctures or blow backs. The ignition appears good.

It is not a speed lock. The striker travel is $\frac{1}{2}$ inch. It is equipped with a rebound spring. The striker is pulled down by the trigger until its play is taken up, when it stops audibly just before the sear releases it. This is somewhat annoying but not serious. The weight of pull is very good, being about $3\frac{1}{2}$ pounds. The quoted weight of the rifle is $5\frac{1}{2}$ pounds.

The front sight is a square top blade of good width held on a dovetail base in a barrel slot. There is no other barrel slot to affect latent accuracy. The rear sight is the Lyman 55-W with a convenient lever lock and a good target disc. It fits the extreme rear end of the receiver on the left and an extension carries the peep arm back, increasing the sighting radius to practically 29 inches. The sights are excellent for target work.

The front swivel is part of an outside band around forestock and barrel. The swivels accommodate a wide sling. The sling equipment is fine for boys and can be used by adults, although the front swivel is only 14 inches forward of the trigger which makes the 13" buttstock feel too short. This sense of shortness is furthered by the crooked and short comb. The point of the comb is only $8\frac{1}{4}$ inches from the heel. Another inch would suit a man or boy better. The steel buttplate has a good shape, adapted for different positions on the shoulder. Its surface is very effectively knurled against slipping in any position chosen.

Because of the excessive drop the comb must be built up at least $\frac{1}{2}$ inch for the prone position. After this has been done for junior use, a thick shotgun recoil

pad will lengthen the stock enough to adapt it for senior use. The forestock is round and pretty narrow for a large hand and too short for a long arm, but it is excellent for a boy's use and better than those on competitive models in this class. The drop is $2\frac{1}{4}$ inches at the comb and $3\frac{1}{4}$ inches at the heel. The pistol grip is too far from the trigger to support the bottom of the hand and the comb shoulder is too far back to support the top of the hand. It should be moved forward an inch and raised $\frac{1}{2}$ inch. The length of pull and of the forestock is all right "as is" for junior use.

In spite of the short crooked stock we obtained fair results from prone with sights and sling as issued, and E. H. Hoffman fired one group standing at 50 yards, with Palma Match, that measured 2 5/16 inches and scored 84 x 100. Our prone scores at 60 yards with Palma Match were 89 and 90. Our 50-yard scores with the various boys' rifles averaged about 91. The two prone scores I fired with Precision in this rifle were 92 and 93. The latter group had 9 shots in 1 inch, center to center, and all 10 cut a $1\frac{1}{8}$ circle. In our other prone shooting the best 10-shot groups were: $1\frac{1}{2}$ inches with Super Match, $1\frac{9}{16}$ inches with Palma Match and $2\frac{5}{16}$ inches with Staynless lubricated.

From sandbag rest (three shooters) the smallest 50-yard group with Precision was $1\frac{1}{8}$ inches and the largest was $2\frac{3}{4}$ inches. Fifty shots gave an average (per 10 shots) of $2\frac{1}{4}$ inches. The smallest group with Staynless was $2\frac{5}{16}$ inches. Nearly every group had 7 shots in 1 inch and 8 shots in $1\frac{1}{2}$ inches.

If it were not for the poor design of the buttstock this could qualify as the best arm of its class on the market. Finish, forestock and buttplate are fine, but the comb, grip and drop need improvement.

This rifle is certainly fine enough to merit some study of buttstock requirements at the Winchester factory. A training rifle like this is intended for prone shooting and a boy can use to advantage a better grip and less drop. While a longer comb would not be a disadvantage, a boy needs a shorter buttstock than a man. However, a buttstock properly dimensioned for junior prone work can be readily adapted for seniors by extending the buttstock with a block of wood beneath the plate or by fitting a thick shotgun pad.

The Model 63 Autoloading Rifle

The old 1903 Winchester Automatic has been given an improved buttstock with pistol grip, and the barrel and mechanism has been adapted for the cheaper, more powerful and more readily obtained .22 Long Rifle Super-Speed and Super-X ammunition. This gun is evidently intended as a handy knock-about arm for plinking and small game, because the overall length is just a yard, the barrel being 20 inches.

The buttstock is much better than that of the 60-A Target Winchester, although the Model 63 is an offhand arm. The comb is practically 9 inches long and the drop is $1\frac{1}{8} \times 2\frac{1}{2}$ inches. The pistol grip is also better, being similar to that on the Model 54 Winchester. The length of pull is 13 inches. It cannot be lengthened on account of the magazine in the butt.

This excellent buttstock would promote steady holding were it not handicapped by the short forestock (only 11 inches to the tip from the trigger) and short barrel, which leaves the gun pronouncedly butt-heavy. The gun handles well as a machine gun from the hip or in rapid-fire plinking on rolling or running targets, and this one purpose lets it out. In deliberate offhand shooting it feels insecure and the left hand must grasp the barrel near the front sight. It does not have the quality commonly referred to as "balance."

It has very pleasing lines, suggesting an even taper from buttplate to muzzle. It is stubby, solid and heavy, weighing 6 pounds. This is also the weight of the pull, which is unpleasant in nature, feeling like compressing a spring or bending a wire rather than "like breaking a glass rod." It is fast enough for rough work, such as keeping a small can rolling or quickly reducing the several pieces of a brick bat, shattered by the first shot. For such pleasant pastimes and for hip shooting and for the "smoking up" of running small game the Model 63 should prove satisfactory when used with Super-X or Super-Speed ammunition.

A carton of Staynless Long Rifle ammunition came with the sample but it did not prove reliable. It was fed into the buttstock in lots of 10 cartridges and, out of a dozen such loadings, not one came

through without a jam. In fact it jammed nearly every shot with Staynless. Precision 200 worked fine, and out of 100 shots only one cartridge caused a hitch. Other loads which functioned properly were: Palma Match, Kleanbore, Federal Lesmok, Federal Lesmok Hollow Point, Federal Xcess Speed Hollow Point, Super-Speed, Super-X and Western Super Match. Cartridges which failed in this test were: Palma Hi-Speed, Federal XL Xcess Speed, Federal Copper Coated and Winchester Staynless.

Although it is not built for any kind of deliberate target shooting the Model 63 is accurate. With the Lyman tang sight (disc removed) and bright gold bead our smallest group with Precision 200 measured $1\frac{9}{16}$ inches at 50 yards. The other groups had 8 shots in $1\frac{3}{8}$ to $1\frac{1}{8}$ inches. With the 438 Field scope the best Staynless group was $1\frac{9}{16}$ inches at 50 yards. The gun was very difficult to hold on the sandbag rest.

For the limited purposes of this rifle a scope sight is out of place. A folding peep sight extends the practical range for small-game shooting to 75 yards, and the barrel should be at least 4 inches longer for deliberate shooting. The scope would not extend this range limit and the blocks interfere with the metallic sights. Since it is not a training rifle or a target rifle and because its normal, practical range is less than 40 yards, the Lyman No. 6 leaf sight with white triangle and a large red or white front sight would be most useful on this rifle. A folding tang sight would take care of occasional deliberate shots beyond 40 yards. For plinking purposes, purely, the .22 Long Rifle cartridge is inferior to the .22 Short from the standpoint of cost and safety.

Of course, this gun will handle only some of the .22 Long Rifle loads, and none in other sizes. When used with Super-Speed, Super-X, or any other ammunition which will insure reliable function, the Model 63 Winchester is well adapted for any snap-shooting purpose including plinking, running small game, as a trail gun for the trapper, guide or camper, or even as a household handy gun for those who have not developed a practical ability with a pistol or revolver. The standard short barrel makes the gun more conveniently portable for all these purposes. I do not care to encourage the wounding of small game on the run, and do not recommend the 63-W for game shooting beyond 40 yards, because it needs a longer barrel and forestock for deliberate fine shooting. The increased length would also better adapt it for the new N. R. A. X-Ring Field Game.

The Model 61 Hammerless

The old hammer model 1906 Winchester is still active in its new dress, now called

the Model 62. The heavier 1890 Model with octagon barrel was one of the best slide action arms I ever tried. In the .22 W. R. F. caliber it killed many bags of squirrels, cotton tails and Minnesota jack rabbits. A pint bottle at 100 yards was "duck-soup" for this arm. With the Lyman tang sight it made $\frac{3}{4}$ 10-shot groups at 25 yards from table rest.

Through all these intervening years nothing better ever came to light until the new Winchester hammerless slide action appeared. In lines, this Model 61 suggests the hammerless Winchester shotguns, Models 12 and 42. It weighs about 6 pounds with the 24" octagon barrel. The stock is very good for offhand plinking and it should be very satisfactory for game-shooting positions, but $\frac{1}{2}$ " greater length would improve it. It has a good pistol grip and the drop is $1\frac{3}{4} \times 2\frac{3}{4}$ inches. The length of pull is $13\frac{1}{4}$ inches and the distance from butt to slide handle tip is 26 inches. The slide handle is flat on the bottom and "corrugated" on the sides, affording a pretty good grip. The left hand reach is nearly 2 inches ahead of that on the Model 63 autoloader. The additional muzzle weight and the longer sight base makes the Model 61 far better for deliberate shooting and it is almost as fast and far more reliable for plinking, because selected brands and sizes of ammunition are not required. The trigger pull is also better, being lighter by 2 pounds, shorter in movement and cleaner in let-off.

The Model 61 is also more accurate, judging from the performance of the samples. In fact, it was surprisingly accurate; better than any plinking rifle I have ever tried. With the Lyman tang sight (without target disc) and bright gold bead we fired two direct scores of 97 on the N. R. A. target at 50 yards. The first group with Precision 200 measured $1\frac{5}{8}$ inches, and the second exactly 1 inch, center to center. This gun was accurate enough to justify a scope, and a check target was fired with the 438 Field scope, resulting in a group of $1\frac{1}{8}$ inches and a direct score of 98 at 50 yards. With Staynless, our 10-shot groups measured $1\frac{7}{16}$ inches and $1\frac{13}{16}$ inches, with 8 shots in $1\frac{3}{8}$ and $\frac{7}{8}$ inches respectively. To get comparative results with the flat-top U-notch open sight we tried the best load at 50 yards, and the groups ran from $2\frac{3}{4}$ to $3\frac{1}{4}$ inches.

Good combination front sights, like the King or Watson, for plinking and target work together with a target type peep sight is needed to develop the fine ability and versatility of an arm like this Model 61. Its accuracy adapts it for small-game shooting at the longer ranges, and its speed of fire adapts it for work on running game at shorter ranges. The tubular magazine and carrier handles .22 Shorts, .22 Longs and .22 Long Rifle cartridges interchange-

ably, adapting the arm for economical practice or any kind of plinking game. It is also versatile in the matter of handling low-speed or high-velocity ammunition at the owner's will. A Hi-Speed load gave a $2\frac{3}{8}$ " group at 50 yards with the hunting sights, 8 of them in $1\frac{1}{8}$ " inches.

On the New N. R. A. Field Targets

This gun worked fine on the N. R. A. X-Ring Field targets and I kept up my average when using it exclusively at our last competition. Other shooters also obtained good results with it, but preferred some of the other rifles which had less heel-drop and slightly longer buttstocks. Some of this preference may have been due to the difference in the angle of the buttplate on the different rifles tried. The nature of this game calls for a pitch down of about 3 inches at the muzzle. Up to this stage of the game peep-sighted bolt action repeaters have proven the most popular among the contestants and these arms have also given the highest scores. The type of rifle leading in popularity at present is represented by the Savage 1933 Match rifle and the 52 Winchester, remodelled into a sporting arm of the same weight, or about 8 pounds. Perhaps the faster plinking rifles will not come into their own in this game until the time limit is reduced to 3 seconds.

THE STEVENS 419 BOLT ACTION

THE Stevens 419 single shot target rifle weighs about $5\frac{1}{2}$ pounds with 26" barrel. It has sling swivels for a narrow strap. The cross-grooved, flat buttplate is straight, as it should be, and may be raised on the shoulder in prone position to compensate for some of the offhand crookedness of the stock, which is $1\frac{3}{4}$ " x $2\frac{3}{4}$ " inches. The pistol grip is good and the comb is sufficiently long, being $9\frac{1}{2}$ " inches. The length of pull is $13\frac{1}{4}$ " inches from the trigger (when cocked) and the distance to the front swivel is the same. This is long enough for a boy, but pretty short for a man. The sights are good, being a broad, flat-top blade and the Lyman 55 receiver sight. The distance between sights is nearly $29\frac{1}{4}$ " inches.

The breech is cut out to enclose the face of the bolt, which is recessed for high-velocity cartridge heads. The bolt knob is small and too close to the wood for a good grasp. The bolt body is $4\frac{3}{8}$ " inches long. The striker travel is $\frac{5}{8}$ inch. It has a large cocking knob and must be drawn back for each shot. It has a trick of tending to turn to the right into safe position while being cocked. The bolt handle is enlarged at the base to form the locking lug and bolt guide. The sear acts as the bolt stop. The top of the receiver is cut away partially on the left and down to the wood on the right to facilitate loading. The ex-

tractor is let into the bolt and the barrel is beveled above the chamber to accommodate it in closed position. The trigger, bolt, and all metal parts are blued.

The walnut stock is oiled and waxed very smooth. I would call this stock very neatly proportioned. The pistol grip and fillets are very good, as is the straight buttplate. All it needs is $\frac{1}{4}$ inch less drop at the comb and $\frac{1}{2}$ inch less at the heel. I do not care for the forestock grooves and would want the swivel moved at least 2 inches farther out. It is all right for a boy as is. The swivels, however, should be larger, to take a $1\frac{1}{4}$ " sling.

The trigger has a clean let off, but is a bit heavy, bordering on 5 pounds. The sample rifle did not like Precision but it made $2\frac{1}{4}$ to $2\frac{3}{4}$ " groups at 50 yards with Palma Kleanbore. In our match it held its own, using Palma Hi-Speed, by scoring 91 x 100. The barrel of this Stevens 419 appears to be a good one. Two pins hold it in the receiver. Perhaps the accuracy would be improved by strengthening the rather cheap assembly unit, consisting of a slender stock screw, and a separate lug held insecurely in a shallow dovetail slot in the bottom of the barrel.

BOYS' TRAINING RIFLES COMPARED

BEING often asked to compare the single shot bolt action junior rifles, I submit the following collective opinions. When trying a number of the new boys' rifles on junior and senior shooters, the following reactions have been consistently obtained.

The \$6 Mossberg stock is preferred on account of its large size fore-end and $13\frac{1}{2}$ " pull. In my opinion the drop is excessive by fully $\frac{3}{4}$ inch for prone shooting and for adults the forestock is 2 inches short. The Mossberg has the best front sight and the best bolt handle. Also the bolt can be removed for cleaning without removing or raising the receiver sight.

The \$10.50 N. R. A. Junior 33 has the strongest action on account of the double-locking lugs and enclosed head and the most versatile barrel by virtue of shooting accurately with a great variety of loads. For adult prone shooting the forestock is short by $2\frac{1}{2}$ inches and the buttstock is too crooked by $\frac{1}{2}$ inch.

The \$11.65 Stevens has the best and neatest buttstock and best pistol grip and the longest sighting base. The drop is excessive by $\frac{3}{8}$ inch for prone shooting and the forestock is 2 inches short for adults.

The \$13.35 Winchester has a tie vote with the Remington for accuracy when selected ammunition is used in both, and it has the best swivels, forestock, rear sight and trigger pull, with another tie for buttplate honors with the Stevens. The drop is excessive by at least $\frac{3}{4}$ inch for prone

shooting, but the forestock is only 1 inch short. The Winchester has the best .22-caliber action on account of its short length, good ignition and the ease of single loading. It also has the most clearly marked safety.

SOME MACHINE-REST GROUPS

I HAVE just managed to beat the printer's copy date with some short range testing of the cheaper boys' rifles from machine rest. Because the distance from muzzle to target was only 30 feet, I confined the test to those rifles which are listed at less than \$12. The rests used were new samples which will be described in a later issue. The Weaver rest will accommodate pistols as well as rifles with or without stocks. The Riley rest will handle only complete rifles as the buttstock furnishes the rear support in this rest. Both rests employ a muzzle clamp with a recoil guide and a stop for relocating the rifle position for each shot.

The Stevens 419 has a very weak stock screw and a poorly designed assembly arrangement. The threaded lug is held in a dovetail slot in the bottom of the barrel, and when the very slender stock screw was drawn up snugly the lug pulled out of its seat, making it necessary to shoot the Stevens only in the Weaver rest because the stock had to be removed. Later the stock was refitted and it gave identical groups in the Weaver rest that way.

Hi-Speed, regular target type, and selected match ammunition was used, and 10-shot groups were fired with each brand. None of these rifles liked Palma Kleanbore and all of them did better with Palma Hi-Speed. Since the biggest groups were obtained with Palma Kleanbore a check group was fired with this ammunition in a heavy barrel 52 Winchester as included in the tables. With all groups averaged as fired the various rifles finished as follows: Stevens, .653 inch; Iver Johnson, .549 inch; Mossberg, .491 inch; and Remington, .434 inch.

With the favored load in each rifle the smallest groups at 30 feet indicate the probable *minimum* groups which could be expected at 50 yards and at 100 yards, as shown in the following tables:

Gun	Load	Rest	Yds.		
			10	50	100
			Ins.	Ins.	Ins.
Iver Johnson	Palma Match	Weaver	.463	2	4
Mossberg 8. S.	Palma Match	Weaver	.372	1 $\frac{1}{4}$	3 $\frac{1}{4}$
Stevens 419	Palma Match	Weaver	.372	1 $\frac{1}{4}$	3 $\frac{1}{4}$
N. R. A. Jr. 33	Palma Match	Riley	.247	1 $\frac{1}{4}$	2 $\frac{1}{2}$

Palma Hi-Speed was fired in three rifles with the following results (actual only at the 10-yard range):

Gun	Rest	10 Yds. 50 Yds. 100 Yds.		
		Inches	Inches	Inches
N. R. A. Jr. 33	Riley	.372	1 $\frac{1}{4}$	3 $\frac{1}{4}$
Mossberg 8. S.	Riley	.340	1 $\frac{1}{4}$	3 $\frac{1}{4}$
Mossberg 8. S.	Weaver	.340	1 $\frac{1}{4}$	3 $\frac{1}{4}$
Stevens 419	Weaver	.653	3 $\frac{1}{4}$	6 $\frac{1}{2}$

On the Riley rest Palma Kleanbore gave groups of .590, .560, and .309 inch in the Mossberg rifle. Against this average a

check group was fired in a heavy barrel 52 Winchester using the same ammunition and rest. The results:

Gun	10 Yds.	50 Yds.	100 Yds.
	inches	_inches_	_inches_
Mosberg, S. S.	.486	2 1/2	5
52 Winchester (heavy barrel)	.153	3	1 1/2

THE LYMAN CUTTS COMPENSATOR AND FEDERAL 12-GAUGE LOADS

THE Cutts-Compensator for one-barrel shotguns and rifles deserves to be better known among sportsmen. The Lyman Gun Sight Corporation has for several years been making these control tubes for 12-gauge shotguns and .30-caliber rifles. Recently they added to their line of manufacture a smaller compensator for 20-gauge shotguns. A couple of years ago I had one fitted at the Lyman factory to my Savage Model 28 Trap Grade pump gun. Because of lack of time I have only a limited experience with this outfit.

About 6 inches of the barrel was cut off at the muzzle to remove the choke and to compensate for the weight and length of the compensator. With the device and choke tube in place the barrel length is now 29 inches. I had the compensator fitted at such an angle that it would place the center of the pattern a bit high at 35 yards.

The compensator is a steel tube about 4 inches long and 1 1/4 inches in diameter. There are a dozen cross slots in the top and bottom of this cylinder for the purpose of releasing the gases just as the shot column enters the choke tube in front of it. This cuts down the muzzle blast and the likelihood of driving the wads into the base of the shot column which always scatters the pellets. In a normal gun this business of "blown up" patterns is most pronounced when the choke is open and thus offers the least restriction to the passage of the wads and shot. The reduction of muzzle blast also cuts down secondary recoil caused by the column of gas striking the outside air at high velocity. The peculiar release (up and down) of gas pressure behind the choke also has a stabilizing effect on the muzzle and tends to keep it on an even plane, so that a second shot may be gotten in quickly. This blocking of the usual jump or rise of the barrel also modifies the recoil-jar normally suffered by the cheek bone when the gun rocks on the shoulder in a vertical plane. Fortunately, the more pronounced are all these adverse effects in the gun or in the load the greater will be the counteracting effect when the compensator is used.

The best feature of the compensator is the choke control that it provides. The end of the compensator is threaded for interchangeable choke tubes. These tubes add about 3 inches to the overall length of the compensator. There are six flat sides, each about 5/8 inch long, to provide a

secure seat for the wrench. I have perhaps used all of them a dozen times on my gun without scratching their blued finish. My outfit consists of three full choke tubes and three open choke tubes in a handy wooden case which also holds the Lyman wrench. The choke diameters of these tubes are .680, .690, .705, .725, and .740 inch, together with still larger short length Spreader tube, which provides a sort of belled muzzle. As the normal 12-gauge bore diameter is .729 inch, the range of choke restriction is quite comprehensive as indicated by the figures given above. For long-range patterns, or an extreme choke, a .675" pattern tube is also available.

A most comprehensive ballistic test of the Lyman Cutts-Compensator was conducted by L. C. Weldin at the Ballistic Station of the Hercules Powder Company as reported in the February 1931 issue of THE AMERICAN RIFLEMAN. One hundred shots were fired with each load in an uncompensated gun and repeated for comparative results in the same gun after it had been compensated. The test furnished comparative dope on average velocity, pressure, recoil and pattern for a typical trap load and for a typical heavy duck load.

When testing the trap load (1 1/4 ozs. No. 7 1/2c) the .690" pattern tube was used on the compensator. The mean figures for 100 shots with each of the two choked bores were as follows:

	Velocity		Pressure	
	Mean	High	Low	Mean
Original Barrel	852	874	832	7.740
Compensated	851	897	814	7.980
	Recoil		Pattern (%)	
	Mean	Mean	High	Low
Original Barrel	10.78	60.1	78.1	33.7
Compensated	9.35	63.3	74.1	37.8

The duck load (1 1/4 ozs. No. 6c) was tested in the .680" pattern tube. The figures for 100 shots were as follows:

	Velocity		Pressure	
	Mean	High	Low	Mean
Original Barrel	964	998	893	6.860
Compensated	961	1,001	900	7.060
	Recoil		Pattern (%)	
	Mean	Mean	High	Low
Original Barrel	12.34	64.2	83.6	24.5
Compensated	10.32	69.6	80.0	44.1

These figures show 43 per cent more recoil energy for the original barrel with the heavy duck load and 34 per cent when the trap load was used. This reduction in recoil varies with the slant of the slots in the compensator. By sloping these cuts at the required angle to the rear the back thrust of the gun against the shoulder could be entirely eliminated. The compensator on my gun has perpendicular slots and only secondary recoil is diminished with primary recoil left about normal. The 100-shot figures show less variation between the individual high and low patterns for the compensated tube with both loads. This, however, does not tell the

complete story of distribution. In the report a more detailed analysis is given which shows an appreciably more even and uniform distribution of the pellets within the pattern limits when the compensator was used.

In trap shooting I have noticed no great difference in the performance of the various Lyman pattern tubes. Perhaps I am not good enough at the traps to appreciate any difference which may exist. I am always experimenting with different guns, positions, distances and holds, so I have established no definite timing, and when I make a good score it is quite accidental. When I used the long-range tubes I got the usual 20 to 24 birds by waiting them out and holding low as they descended near the weed tops. I would say, however, the .705" tube is best for trap shooting on a 16-yard rise. For the beginner or average shot the .725" tube would probably break more birds than any other. In skeet shooting the .740" tube should be better, or even the spreader tube.

I had to resort to the pattern board to try out the interchangeable choke tubes. I used Federal cartridges which I had on hand in both types of loads for trap shooting and duck shooting. The trap loads were standard in every respect and performed like other modern loads also employing special cupped wads and standard loads of the latest du Pont MX and Hercules Red Dot bulk powders.

The 1 1/4 ounces of No. 7 1/2 chilled shot made 12" patterns at 20 yards about the same with the .680", .705", .725" and .740" tubes. The only difference was a more dense center with the smaller tubes. The .705" tube had nearly twice as many pellets in the 2" center ring as the .740" tube. The .680" tube put 400 pellets in a 12" x 12" square for 25 hits per 3" square. The Spreader tube made a pronounced difference, making a 30" pattern at 20 yards. There were 318 pellets in the 21" x 21" center for 6.5 hits per 3" square. The .680" tube placed as many pellets in a 12" circle as the Spreader tube placed in a 24" circle, this being practically 400 hits in either case. At 40 yards the .680" tube put 178 pellets in an area 21" x 21" inches for 3.6 hits per 3" square.

The Hi-Power Oval loads contained, by count, 167 pellets of No. 4 chilled and 282 pellets of No. 6 chilled. They were tried in the .680" tube. These also made 12" patterns at 20 yards. The average for the No. 6 shot was 206 pellets in a 12" x 12" area for 13 hits per 3" square. The average for the No. 4 shot was 7.7 hits per 3" square.

At 40 yards the .680" tube made a 20" killing circle with No. 7 1/2 shot and No. 4 shot and a 24" killing circle with No. 6 shot. The mean for the No. 4 chilled loads was 93.5 pellets in a 21" x 21" area for 1.9 hits per 3" square. Similarly the

average for No. 6 chilled shot was 142 pellets and 3 hits per 3" square. In another test at 40 yards with the .690" tube the No. 4 chilled loads averaged 109 pellets, or 65 per cent of the load in a 2-foot square, and No. 6 chilled shot averaged 162 hits, or 60 per cent in the same area. This area is, of course, considerably smaller than the standard 30" circle used for percentages at 40 yards.

THE CLIMAX DECAPPER

MARSHALL MANUFACTURING COMPANY, Kansas City, Mo., have brought out a handy pocket decapper in .30-'06 caliber. It is not difficult to decap fired cases at home with reloading tool equipment or with merely a punch and mallet, which may be a small file and a billet of wood. However, this chore is often neglected after the rifle is cleaned, oiled and put away. It is important to remove the fired primer as soon as possible to avoid deterioration of the case from corrosion in the primer pocket even when non-mercuric primers are used.

With the handy Climax Decapper this necessary chore may be accomplished on the range while one is awaiting his turn to fire or while post mortems are being held.

The decapping pin, rigid and non-adjustable, is mounted in a tube which acts as a guide and steers the pin unerringly into the flash hole of the case. This decapping tube is mounted on a bent of the lever, or operating handle of the tool. As the lever is closed the decapper is raised against a guide and the shell base encounters a stop, while the pin continues and punches out the primer through a large hole provided in the stop.

The tool is quite fast and convenient to operate, much like squeezing the handles of a clipper by closing the hand. The sample worked unfailingly and also decapped .45 A. C. P. cases with speed and precision. They are comparatively inexpensive and are worth while as auxiliary equipment to the regular reloading tool.

CORRECTION

IN COMMENTING upon the Peters 158-gr. Full Charge Wadcutter in the August Dope Bag, I mentioned in connection with this .38 Special caliber cartridge the S. & W. Safety Hammerless pocket revolver, which is chambered for the .38 S. & W. cartridge. The .38 S. & W. chamber (also .38 Colt New Police) is large enough but too short to take any .38 Special cartridge. The rim thickness of the .38 Special is also about .002 inch greater than that of the .38 S. & W. cartridge.

Questions and Answers

EVERY week thousands of letters are received at N. R. A. headquarters and are routed to the eight different Departments. When a letter must be relayed for reply to several departments in turn, it is subject to delays and interfere traffic is increased. On the other hand, when letters are confined to a separate N. R. A. function they can go directly to the proper department for final reply and, obviously, the office is relieved of unnecessary congestion, likelihood of loss is lessened and prompt service to the member is made possible.

All questions relating to guns, ammunition, shooting, shooting equipment and accessories should be confined to separate letters addressed to the Dope Bag. When it is desired to include Dope Bag questions in general N. R. A. correspondence, such questions intended for this department should be written on separate paper, marked for the Dope Bag and have the member's name and address LEGIBLY PRINTED on same.

.30-'06 HEADSPACE CHECK AVAILABLE FOR N. R. A. MEMBERS IN NEW YORK

YOUR recent articles in THE AMERICAN RIFLEMAN concerning headspace tolerances coupled with the increasing number of .30-'06 rifles getting into circulation (some of doubtful origin) prompted our local club to obtain from Springfield Armory a set of minimum (1.940 inches) and maximum (1.944 inches) gages for use in testing our .30-'06 rifles wherever any doubt existed.

The writer spent an afternoon in the assembly, proof and inspection departments of the Armory. The entire staff, and Mr. Callahan in particular, were most kind in making plain the importance of correct headspace, and the use of the gages or the gages plus steel shims to determine a rifle's headspace condition.

The club is quite willing that rifles of other N. R. A. members be tested. The gages were paid for by the club so a nominal charge of 50 cents per rifle is made for the test to reimburse the club treasury for the cost of the gages, which cost plenty, but have proven worth their weight in gold to us already.

In case any N. R. A. members from or near New York City wish to have rifles tested, the club (The Bronx Revolver Association Inc.) meets on Monday evenings at the 105th Field Artillery Armory, 166 Street and Franklin Ave., Bronx, New York, N. Y. The gages are available for tests on Mondays, or they can write me at my home address.

Yours very truly,

Bronx Revolver Association, Inc.,
THOMAS C. FLORICH, Range Officer,
2118 Hermany Ave., Bronx, New
York, N. Y.

ON CLEANING FIRED CASES

REGARDING cleaning of fired cases, my method is as follows:

1. Bend a glass rod over a flame at an angle to hold the cases.

2. Obtain concentrated nitric acid from druggist and prepare a 75 per cent solution, i. e., 25 per cent water and 75 per cent nitric acid (75 cc nitric 25 cc water).

3. Pour this into a small glass dish deep enough to completely submerge the case to be cleaned.

4. Have another glass dish of clean water alongside of acid bath.

5. Prepare a non-metal dish with about 1 or 2 per cent solution of ammonia.

6. The case is then put on the glass rod and dipped into the acid and *immediately* rinsed in the clean water and dropped into the ammonia water. It may be left there until all the cases are cleaned. Care should be taken to prevent the cases from touching each other in the ammonia or they will stain at the point of contact. Also a test with litmus paper should be taken of the ammonia to see that it does not turn acid. This last is only necessary when cleaning 100 or more cases.

7. The cases are then washed in clean hot water and set in a wire rack and put in an oven at about 225° F. and left there for 15 minutes. The cases can then be stored away as they are thoroughly dry and will last forever without tarnishing. Heat up to 300° F. will not injure the cases in any way.

This cleaning should be done near an open window as a brown gas is given off when the cases are removed from the acid. This gas is not dangerous but causes coughing if too much accumulates.

To date I have cleaned over 1,000 cases this way and all my cases are loaded for full power (53 gr. No. 15½ .270 cal.) and I have had no trouble with failures. Some of my cases have been cleaned 4 times with no trouble. The cases lose about 3 grains weight on each cleaning, yet they do not weaken. Of course I inspect them carefully before loading and I find that it is wise to discard any case in which the primer seats too easily. This is a sign that the primer pocket has enlarged and the case, in my opinion, is no longer serviceable.

Incidentally, I note that where the new nonmercuric primer is used the primer pocket is very hard to clean as the residue is just like stone. However, it is only necessary to dip the head of the case into the acid for a second or so and this residue will come out.

My friend, Mr. Gardiner, of Bayside, L. I., has tried both my method and Dr. Mann's method of cleaning, and he agrees that my method is much better. It is quicker, cheaper, not dangerous, and leaves the case much cleaner.

Just how well this method will work on small thin cases of the Hornet variety I don't know. I haven't reloaded or cleaned my Hornet cases as yet, but intend to shortly.

If any of your friends try this cleaning method, I should like to hear from them as to the results. Or if you know of any better method, I should like to hear about it. I find that I can clean and store away about 100 cases per hour by this method.—W. OLIN SHIRMER.

USE HERCULES NO. 2400 FOR HIGH VELOCITY

I NOTICE you recommend for wood-chucks in the Hornet cartridge a hand-load with a velocity of 2,600 feet. I would appreciate it if you would write me what kind and charge of powder you use to obtain such velocity in the Hornet cartridge.

I have the memorandum published some time ago in THE AMERICAN RIFLEMAN from Mr. Witsell of Remington, stating that 9.9 grains of Hercules No. 2400 is what is used to obtain such velocity in the Remington hollowpoint loads, but I have no load for such velocity when the No. 1204 powder is the propellant. In fact, I have not been using over 11 grains of No. 1204 in this cartridge.—H.E.D.

Answer: I have loaded the Winchester 45-gr. S. P. bullet to 2,600 f.s. in new and old .22 Hornet cases by using 10.5 grains weight Hercules No. 2400 powder. The pressure is up as high as is desirable to go, but the accuracy is fine and of course killing effect is improved. I am sending you a pamphlet on this powder which has just been released by the Hercules Powder Company.

You cannot get 2,600 f.s. with No. 1204 powder behind any 45-gr. bullet as the case will only hold 11.7 grains weight and the pressure is too high. To get 2,600 f.s. you need 12.1 grains weight No. 1204 behind the 35-gr. Sisk bullet, the powder must be compressed and the pressure is above 37,000 pounds.

RIFLES FOR DEER WOODS

WHAT rating do you give the Remington Automatic .35 as a rifle for hunting deer in the southeast where the territory is almost altogether wooded? I should like a comparison of this rifle with bolt action and lever action rifles.

Your comments in full will be appreciated.—C.B.S.

Answer: The .35 Remington is a pretty popular deer cartridge for eastern hunting and it will also serve for such game as moose at short range. It is slightly above the class of the .30-30 series which includes such cartridges as the .32 Winchester Special, and it is more nearly in the class of the .45-70 and .33 Winchester. The .35 Remington is an accurate cartridge, and it is good enough for short-range target work in a bolt action rifle like the Model 30 Remington when the latter is properly sighted and stocked. Using the Belding & Mull bolt sleeve sight and the Marine Corps type front sight I have obtained "possibles" on the small-bore target at 100 yards with the .35 Remington in the Remington bolt action rifle. The groups with the light handy repeaters in the .30-30 class are nearly twice as large, but of course all of these are accurate enough for deer shooting at ranges within 200 yards, such as would prevail in your wooded section.

The best rifle in point of accurate shooting and modern equipment and stock for your country would be the .250 Savage Model 99 RS lever action. This rifle would also serve for coyote shooting and other vermin on account of its fine accuracy. The next best rifle meeting the above qualifications would be the new lever action Winchester series like the Model 64 in .30-30 Winchester or .32 Winchester Special caliber. These are special rifles built exactly for your requirements. They are of course not as accurate as the .250 Savage for vermin shooting, and they are not as powerful as the .35 Remington in handy rifles like the Model 8 Auto-Loading and the Model 14 Slide Action. The latter two rifles are faster, but they are not as well stocked as the Savage and Winchester improved modern lever actions. The auto-loading model is somewhat unhandy and ungainly to carry and is not equal to the Winchester or Savage in this respect. The slide action is excessive in recoil effect and the sense of looseness of the slide is unpleasant and is also somewhat noisy. I would consider any of the above arms handier to carry than the bolt action and especially in the saddle. The advantage of the bolt action is its adaptability for more powerful loads (for larger game, or for longer ranges) and for reloading as the fired cases are better supported by the front locking lug of the bolt action. The modern bolt action would outclass the others for power, range, accuracy, and vermin shooting.

FURTHER DOPE ON HI-SPEED REVOLVER LOADS

YOUR article in the current issue of THE RIFLEMAN on the accuracy of Remington Hi-Speed handgun cartridges was very interesting to me. The writer in conjunction with members of the Oregon State Police conducted a test along the very same lines.

We confined our test to the .38 Special and used a new Colt Officers' Model for the entire firing. The range was 25 yards and the Police target with $3\frac{1}{2}$ " ten ring was used.

The purpose of our test was to determine the accuracy and general suitability of very heavy loaded cartridges in this popular cartridge as compared to the standard and reduced loadings.

Conditions were made as nearly ideal for testing as possible, that is one man did all the shooting, on the same range and in the shade. Regular Partridge sights were used and firing was done from the usual one-hand target position. No grip adapters or other unusual equipment was used except wrapping adhesive tape around the thumb in order to reduce effect of the increased recoil of the heavy loads.

The writer was selected to do all the firing. The results are tabulated below:

1. **Composite target of 100 shots.** Remington 38-44 loads showed a group size that when placed over the scoring rings registered a score of 91. Group was about $3\frac{1}{2}$ " inches low from regular sight setting and slightly to left of point of aim. Conclusions drawn were that this load was accurate enough to always group within the size of the black bullseye and sufficient for most police uses. Penetration greatly increased. Rather unpleasant to fire at targets. Required a much looser grip than standard loads to get uniform grouping.

2. **Composite target 100 shots.** Lyman-Keith bullet No. 358431, weight 155 grs., sized .358, alloy 1/16, load 7.5 grs. wt. No. 80. Score 93, grouped low, 4 inches, at 6 o'clock. Penetrated one side of heavy galvanized water tank and dented opposite side same as load above. Loud report, heavy recoil, unpleasant to shoot but very powerful. Represents about the maximum load for speed, shock, etc., of which the .38 Special is capable. Other remarks same as for load above.

3. **Composite target 100 shots.** Same Keith bullet as above, charge 5.5 grs. wt. No. 5 Pistol powder. Score 90, grouped 3 inches low, same penetration in the water tank, loud report, heavy recoil, primers showed very high pressure, extraction in some cases difficult. Some shells swelled at heads over ejector cut. This load is too heavy; should be reduced at least 0.3 grs. with new non-mercuric primers, if to be used during hot summer weather.

4. **Composite target 100 shots.** Winchester factory standard 158 gr. load. Score 94, grouped three inches high and two inches to right.

5. **Composite target.** Remington Mid-range wad cutter, 40 shots. Score 96.

6. **Composite target.** Belding & Mull Bullet No. 358165, weight 155 grs., alloy 1/20, sized .358, inch, load 4.2 grs. No. 5. 100 shots, score 96. Shots struck at point of aim in ten ring. Penetration good, but did not make as clean a hole in the water tank as preceding heavy loads. A very accurate, powerful load and not unpleasant to shoot. Pressure medium, very uniform, can be used with the regular grip. On the whole the most powerful and accurate load tried. Capable of grouping in a much smaller area than the ten ring. We got four nice "possibles" with this load in the test, and one group showed 7 shots in one ragged hole and the other three close by. Later tests at long range over water showed this load to be finely accurate at ranges longer than commonly used for pistol work.

7. **Composite target 100 shots.** Same bullet as Test 6, but charge reduced to 3.8 grs. No. 5. Score 96. A very fine all-purpose load, the very best in fact. Report medium, pressure low, easy on cases. Fine for trick shooting with mirror or at targets in the air. Penetration good, shock power on ground-hogs good. Good at long range. About the same as the regular factory standard in velocity. Will group in very small area. Fine for rapid-fire practice and would be a very fair defense load but not quite as good as No. 6. Shots struck at point of aim in ten ring. This is the load that the writer uses for ninetenths of all his pistol shooting.

To sum the whole matter up, it is felt that the Hi-Speed loads have only one point in their favor, namely, added penetration.

Scores on the average would be about 7 points lower than with less powerful loads and this feature makes them inferior for field shooting. This applies to either factory or heavy hand loads. However, one who must have the last bit of energy and speed in the .38 Special at the necessary sacrifice of accuracy to some extent will find that these powerful loads will serve the purpose very well indeed.

The scores for the whole test were quite good. This was the result of using extreme care. Firing was done on dead calm days and at about the same time in the afternoon. Preceding each test string, a warming-up round of ten shots was fired to be sure that I was in good form. If not, test shooting was postponed. If everything was in order the tests were carried on, but never over 30 test shots were fired in one afternoon, sometimes only 10. The whole series required several weeks time to complete.

This matter was undertaken for our own pleasure and information and we were very careful not to favor the hand loads in any way, which is often a common practice with reloaders.

As our conclusions were very much in line with your own we felt that perhaps you might be interested in same and that they might prove of use in your files at some future time in "Dope Bag" correspondence.

—V.E.L.

Answer: I have your letter of June 14th and I want to thank you for the kind interest which prompted you to submit the report of your interesting parallel tests with Hi-Speed loads and powerful hand loads in the .38 Special revolver. Your report and added conclusions drawn from your experience with these loads should be interesting to our readers, and I am going to publish them in the Dope Bag at the first opportunity. It must be borne in mind, of course, that your shooting and your remarks pertain to the Colt Officers' Model and not to the heavier Shooting Master and New Service Colt revolvers or the S. & W. Super Police and Outdoorsman revolvers which are specially adapted for these powerful loads. I would also add that in addition to the greater penetration of the Hi-Speed loads there is a high energy and a high velocity factor to increase killing power, as well as a flatter trajectory to make hitting at long range easier and to somewhat compensate for the slight loss in accuracy.

THE SUPER .38 COLT ON BEAR

YOUR reply to my letter concerning the .38 Super Colt Auto is just received. I have read your late article on the new Remington .38 Caliber Hi-Speed ammunition and note that the energy of the .38 Super tops the list at 490 ft.-lbs. Without the least desire to question the correctness of your opinion that the larger caliber black powder loads are more powerful than the .38 Super, it appears to me that increase of velocity materially increases power, as note the increase of power in rifles of 250-Savage, 270-Winchester, and 30-'06 caliber over the old black powder large caliber rifle.

I have a Ranger friend who has been employed by the United States Government for 15 years, to whom I sold a .38 Super Automatic about 2 years ago. He tells me that he has since killed 7 bears (not in traps) with the .38 Super. He owned a Government Model Colt .45 Automatic, but prefers the .38 Super because of its flatter trajectory. Most of the 7 bears were killed

with a single shot each. This statement may sound like the proverbial fish story, but the ranger told me this, and I can vouch for his absolute veracity. His name and address are: Jalmer Wirkala, Coram, Mont., care of Big Prairie Ranger Station. This test of the power of the .38 Super is not based on theory, but by actual practical experience, on the hardest to kill of American big game.

I am an old-timer; began hunting on the plains east of Denver, Colo., in 1880, at about the time the buffalo became extinct. I began using a .45-90 Sharps, the .40-90 Pacific Ballard, the .45-75 Winchester Centennial Model, and, later, a .38-55 Marlin. All were good, but I discarded them when the small caliber, high velocity smokeless powder rifles came into use. At present I have a cabinet filled with the best high power rifles obtainable.—G.A.T.

Answer: I am glad to have your letter of June 20th relative to the .38 Super Colt vs. the heavy black powder .45 Colt loads by Western and Remington. For such game as bear, which require considerable penetration for certain shots, I would be inclined to favor such loads as the Super .38 and the .45 A.C.P. I admit that there is a high velocity factor involved in the killing power of the Super .38 and, if you read my article, you noted that I took cognizance of this in the paragraphs relating to high velocity handgun loads. However, this factor has not as yet been definitely measured, and its influence can only be guessed at. At the present time experiments are being conducted in order to evolve a satisfactory method for measuring the high velocity factor in its relation to the killing power. For the striking power developed the diameter and shape of the bullet is largely responsible.

In the old .38 Colt Auto load the flatter trajectory was a real advantage as compared with the revolver calibers and slower, heavier bullets. In the new high velocity loads, however, the chief gain is the high velocity and the high energy, because what is gained in trajectory is lost in practical accuracy to a considerable extent.

HIGH-VELOCITY .38 SPECIAL LOADS

I CONTEMPLATE reloading for .38-44 S. & W. Super Police.

Would like to get plenty of power for the .38-44; Ideal recommended several loads, none of which seem to be anywhere near the power of the .38-44 Remington; Belding & Mull referred me to you. Do you know of any .38-44 high-velocity loads (factory) with flat point, this cartridge with a point like .38 Colt Sp. or flatter, would be an ideal game load?—R. J. C.

Answer: There is a factory load for your .38-44 S. & W. Outdoorsman revolver and that is the Remington Hi-Speed .38 Colt Special cartridge with flat-point lead bullet weighing 158 grains. The muzzle velocity is 1,100 f.s.

There are no high-speed loads recommended, outside of those I published in the April Dope Bag for the Ideal Keith bullet in this caliber. Since you have requested it, I will publish the maximum loads for the Belding & Mull bullet in this caliber. Please observe seating depth; as well as primer, loads and temper are important. The bullet may be as much as .002 inch oversize and the temper may be from 1-10 to 1-20. I would consider 1-15 about right for maximum loads. When the old primers are used the charges should be weighed to 1/10 grain. With the noncorrosive primers they should be slightly reduced from .2 to .5 grains weight.

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Outdoor Life is offering \$500.00 in prizes for appropriate names for the new X-Ring N. R. A. Field Target game. 1st prize \$300.00; 2nd \$100.00; 3rd \$75.00; 4th \$25.00. See the September issue of *Outdoor Life* for full details.

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The N. R. A. Service Co. has been appointed national distributors for these targets. See the Service Co. advertisement on page 45 of this issue for further details, special prices to N. R. A. members, etc.

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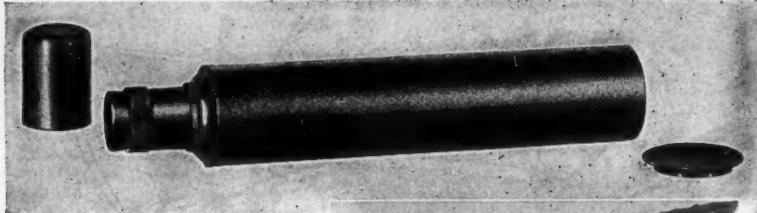
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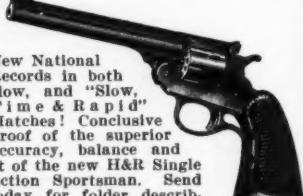
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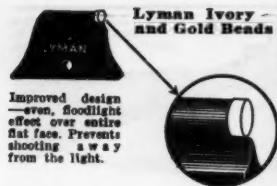
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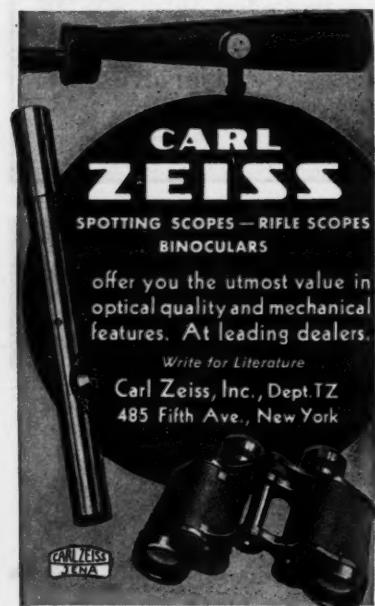
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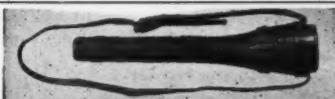
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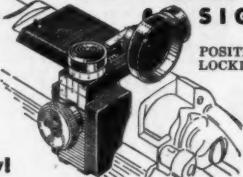
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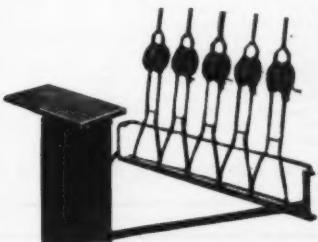
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To My Friends and Fellow Sportsmen—

The Members of the N. R. A.

During the past two months we have been conducting a limited drive for new members,—limited because we do not have the money to spend for a big drive, such as was made at this time last year. I wrote to a selected list of stalwarts in their respective areas, explaining the things we had done this year on a greatly restricted budget, and asked them to help the good work along by signing up one new member. Most of these "oldtimers" were quick to respond. Many have sent in more than their quota of new members.

But notwithstanding the loyal support of this selected group, we still are short of our goal. This month we must enroll quite a number of *additional* members in order that the NRA may keep pace with its last year's record. So, I have decided to ask *all* my friends to lend a helping hand. And in order to save the expense of printing and mailing a letter to all members, I am using this space

in the **RIFLEMAN** to make my personal appeal.

If you have not already done so, I ask you as a personal favor to me to sign up just one good American as an individual member of the NRA. There are a lot of sportsmen back at work today who haven't worked for a long time. There are a lot of men with a little spending money today, who for many months past have merely been able to purchase the bare necessities of life. Hundreds of these men are good NRA prospects. Chances are many have intended to join for a long while. An invitation from some fellow shooter who is an active member is all that is needed to get them to sign up.

If every active member will enroll just one new member, we will be able to keep the good old NRA in the ranks of those organizations which are moving forward with the turn of the tide. Certainly I can count on all my friends and fellow sportsmen for this special effort. Just one new member,—please.



C. B. Lister, Secretary-Treasurer,
National Rifle Association,
Barr Building,
Washington, D. C.

You bet you can count on me to sign up a new member. From the way I size the thing up, I am doing this friend of mine something of a favor, too, by introducing him to the N. R. A.

I am attaching \$3.00 to cover twelve months Annual Membership for the good American citizen named below, \$1.50 of which is for a year's subscription to *The American Rifleman*.

I appreciate what you fellows in Washington have been doing so far this year and am glad to do this much to help you to carry on.

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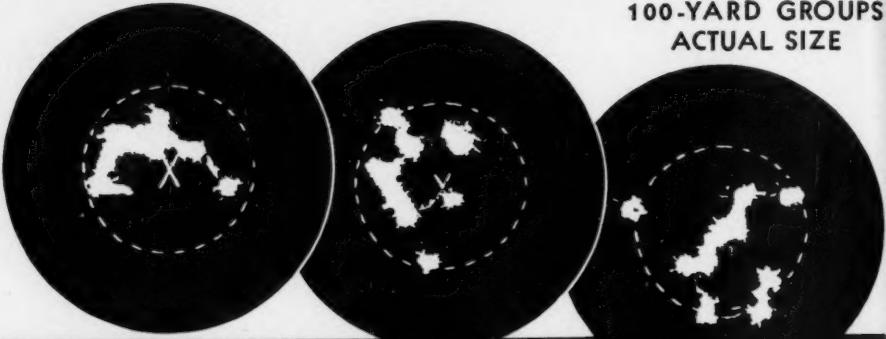
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Fired from prone position, 50 and 100
 yards, by Robert A. Kates, Ashland, Ky.,
 July 11 and 14 with Western Super-Match

THE targets reproduced here do not represent *a few of the best, picked out of many machine rest groups* fired from carefully selected barrels. They were fired from the shoulder under ordinary range conditions in a test of Western Super-Match L. R. smokeless .22's, in a Winchester 52, on the range of the Ashland Rifle Club, Ashland, Ky.

Mr. Kates, who shot these targets voluntarily for his own benefit as a marksman writes, "Super-Match is at least 2 to 4 points better in my gun than any other American cartridge and I think I have tried all the leading match ammunition."

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July 15, 1933.

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Super-Match is at least 2 to 4 points better in my gun than any other American cartridge and I think I have tried all the leading match ammunition. I know, too, that the rest of our club members can do better with Super-Match.

Very truly yours,
Robert A. Kates
Robert A. Kates,
729 - 17th Street,
Ashland, Ky.

Team Captain,
Ashland Rifle Club



50-YARD GROUPS
ACTUAL SIZE

V
8
1
9
8
R
X

UPS
ZE